

# **Exploring Design towards a Sustainable City: Through the lens of Cape Town as World Design Capital 2014**

by  
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## **Declaration**

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Marjorie L. Naidoo  
March 2016

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## Abstract

This study is an exploration of the relationship between advancing technological revolutions and socio-metabolic transitions, evolving global design movements, sustainability, and cities, through the lens of Cape Town as World Design Capital (WDC) 2014, making use of a case study methodology. The WDC2014 used the slogan '*Live Design. Transform Life*'. and it will be explored what contributed towards this approach and whether this approach, focussing on social inclusion and economic development, contributed towards sustainability.

A survey of the main categories of design – product, communications, spatial, service, systems, and socio-political design, as well as the historic design movements coupled to the five technological revolutions - reveals that Design has frequently been enlisted in the service of different ideologies, such as Imperialism, Modernism, Consumerism, and Neoliberalism. The outcomes of the design industry, therefore, have significant ethical implications. In addition, intimate interaction exists between Design and its surrounding socio-political-economic context. Upon examining the evolution in the design of cities, these same observations are evident. An examination of the sustainability challenges of cities – environmental, social and economic – reveals that Design has often not contributed to sustainability, but has rather been a handmaiden towards social inequity and polarisation, and ecological damage and loss. Eight '*Design Cities*' and 3 World Design Capitals are studied, to identify those factors that attracted design activity and expression, their design contribution, their outcomes and legacy.

More recently there is a trend to apply Design in service of human-centeredness and sustainability, but in the case of cities it is particularly apparent that there is strong pull of forces between such a sense of conscience (people and planet), and the quest to establish a city as a centre of power, attracting investment, trade, tourism, and the Creative Class, as well as applying technology to the management and identity of cities.

Considering Cape Town as a case study reveals that the city bears the imprint and the unsustainable consequences of many of the design movements and their linked ideologies - in its segregated urban form, splintered social construct, and environmental challenges. Some of these outcomes are wicked problems, which City Management is attempting to redress, but within the ambit of Neoliberalism (thus addressing the symptoms, while the real problem continues unrestrained).

Cape Town's design community, perhaps 2 percent of the city population, is profiled, as well as the city's Bid for, the rollout, and outcomes of World Design Capital. While Cape Town's socio-spatial challenges were reflected in the Bid, very little of ecological challenges were mentioned. A good citizen response and meaningful City projects and Ward co-design workshops reflected a shift from 20<sup>th</sup> Century indulgent design to 21<sup>st</sup> Century responsible design – a significant year-long intervention, which contributed in measure to a greater appreciation and awareness of the valuable contribution that Design could make. However, for design to fundamentally address unsustainability in this city, an activist Sustainability Design Movement is needed, taking full cognisance of the three spheres of sustainability.

Viewing Cape Town through the lens of the long-wave technological and socio-metabolic cycles, and unfolding design movements, assists in understanding the city and the WDC's intervention and approach to its present state. It is also a useful lens through which to interpret its future trajectory.

### **Keywords**

Technological Revolutions | Design Movements | Technological Revolutions and Design Movements | Design and Sustainable Cities | Design and Ethics | Design and Neoliberalism | Design in the Political Economy | Design Cities | World Design Capital | Design and Sustainability



## Opsomming

Hierdie studie is 'n verkenning van die verhouding tussen die ontwikkelende tegnologiese revolusies en sosio-metaboliese siklusse, veranderende globale ontwerpbewegings, volhoubaarheid, en stede, deur die lens van Kaapstad as Wêreld Ontwerp Hoofstad ('World Design Capital' - WDC) 2014, deur gebruik te maak van 'n gevallestudie. Die WDC2014 het as slagspreuk 'Lewe Ontwerp. Transformeer Lewe' ('Live Design. Transform Life.') gehad, en ondersoek sal ingestel word na wat tot hierdie benadering bygedra het en of hierdie benadering, met die fokus op sosiale insluiting en ekonomiese ontwikkeling, bygedra het tot volhoubaarheid.

'n Ondersoek na die belangrikste kategorieë van ontwerp - produk, kommunikasie, ruimtelike, diens, stelsels, en sosio-politieke ontwerp, sowel as die historiese ontwerpbewegings gekoppel aan die vyf tegnologiese revolusies - onthul dat Ontwerp dikwels ingespan is in diens van verskillende ideologieë, soos Imperialisme, Modernisme, Konsumentisme ('Consumerism') en Neoliberalisme. Die uitkoms van Ontwerp het dus beduidende etiese implikasies. Daar is ook 'n intieme interaksie tussen ontwerp en die omliggende sosio-politieke-ekonomiese konteks. Dieselfde geld vir die evolusie in die ontwerp van stede. 'n Ondersoek na die uitdagings vir volhoubaarheid in stede - ekologies, maatskaplik, en ekonomies - toon dat Ontwerp dikwels nie bygedra het tot volhoubaarheid nie, maar eerder 'n diensmaagd was vir sosiale ongelikheid en polarisasie, en ekologiese skade en verlies. Agt Ontwerp Stede ('*Design Cities*') en 3 Wêreld Ontwerp Hoofstede ('World Design Capitals') word bestudeer, om die faktore wat die ontwerp-aktiwiteite, -bydrae, en -gevolge beïnvloed het, te identifiseer.

Meer onlangs is daar 'n tendens om Ontwerp toe te pas in diens van mens-gesentreerdheid en volhoubaarheid, maar in die geval van stede is dit veral duidelik dat daar 'n sterk stryd van kragte bestaan, tussen die gewete (mense en die planeet), en die dringendheid om 'n stad te vestig as 'n lokus van invloed (wat belegging, handel, toerisme en die 'Kreatiewe Klas' kan lok), sowel as die toepassing van tegnologie in die bestuur en identiteit van stede.

Wanneer Kaapstad as 'n gevallestudie oorweeg word, word dit duidelik dat die stad die onvolhoubare gevolge dra van baie van die ontwerpbewegings en ooreenstemmende ideologieë - in sy gesegregeerde stedelike vorm, versplinterde sosiale konstruksie, en omgewingsprobleme. Sommige van hierdie gevolge is goddelose probleme ('wicked problems'), wat die stadsadministrasie poog om

reg te stel, maar binne die bestek van Neoliberalisme (die simptome word aangespreek, terwyl die werklike probleem ongebreideld voortduur).

Kaapstad se ontwerp gemeenskap, miskien 2 persent van die bevolking, word beskryf, asook die stad se bod vir 'World Design Capital', die program en resultate. Terwyl sosio-ruimtelike uitdagings weerspieël is in Kaapstad se bod, word min aandag aan ekologiese uitdagings bestee. 'n Goeie reaksie van stadsburgers, betekenisvolle stadsprojekte en stads-wyk mede-ontwerp werksinkels, weerspieël 'n verskuiwing van 20ste eeu genotsigtige ontwerp, na 21ste eeu verantwoordelike ontwerp - 'n beduidende jaar-lange ingryping, wat tog bygedra het tot 'n groter waardering en bewustheid van die waardevolle bydrae wat Ontwerp kan lewer. Vir Ontwerp om egter die fundamentele onvolhoubaarheid in hierdie stad aan te spreek, is 'n aktivistiese Volhoubare Ontwerpsbeweging nodig, wat die drie sfere van volhoubaarheid skerp in fokus hou.

Deur Kaapstad deur die lens van lang-golf tegnologiese en sosio-metaboliese siklusse, en ontwikkelende ontwerpbewegings, te besigtig, bevorder 'n begrip van die stad en die intervensie en benadering van WDC 2014 tot die stad se huidige stand. Dit is ook 'n nuttige lens waardeur die stad se toekomstige trajek interpreteer kan word.

## **Sleutelwoorde**

Tegnologiese Revolusies | Ontwerpbewegings | Tegnologiese Revolusies en Ontwerpbewegings |  
Ontwerp en Volhoubare Stede | Ontwerp en Etiek | Ontwerp en Neoliberalisme | Ontwerp in  
die Politieke Ekonomie | Ontwerpstede | World Design Capital | Ontwerp en Volhoubaarheid |

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- And then I lift a glass to Design – a fascinating, varied, nuanced, colourful, meaningful gift, activity and outcome – without which life on earth would be grey.

*The intuitive mind is a sacred gift and the rational mind a faithful servant. We have created a society that honours the servant and has forgotten the gift (Samples 1976, about Albert Einstein).*

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## List of Acronyms and Abbreviations

ANC	African National Congress
ANT	Actor Network Theory
BRT	Bus Rapid Transit
CCDI	Cape Craft + Design Institute
CCTC	Cape Clothing and Textile Cluster
CITI	Cape Information and Technology Initiative
CLOTEX	Western Cape Clothing and Textile Service Centre
CoCT	City of Cape Town
CPUT	Cape Peninsula University of Technology
CRU	Community Residential Unit
CT	Cape Town
CTD	Cape Town Design
CTFC	Cape Town Fashion Council
CTZS	Cape Town Zoning Scheme
DA	Democratic Alliance
DAC	Department of Arts and Culture
DAG	Development Action Group
DEDAT	Department of Economic Development and Tourism (PGWC)
DTI	Department of Trade and Industry
DWA	Department of Water Affairs
EDP	Economic Development Partnership
EPWP	Expanded Public Works Programme
ESRI	Environmental Systems Research Institute
FBR	Fundação CDDH Bento Rubião
GDP	Gross Domestic Product
GIS	Geographic Information System
GSDA	GreenCape Sector Development Agency
ICSID	International Council of Societies of Industrial Design
ICDG	Integrated City Development Grant
ICT	Information and Communication Technology
IDP	Integrated Development Plan
IPTN	Integrated Public Transport Network
IRT	Integrated Rapid Transport
LED	Light Emitting Diodes
LSM	Living Standards Measure
MIASA	Marine Industry South Africa
MOD	Mass participation; Opportunity and access; Development and growth Programme
MPTC	Mitchells Plain Town Centre
MURP	Mayoral Urban Regeneration Programme
NPC	Non-profit Company
NPS	Natural Product Sector
NGO	Non-governmental Organization
PETCO	Polyethylene Terephthalate Company
PGWC	Provincial Government of the Western Cape
RDP	Reconstruction and Development Programme
SAGOA	South African Oil and Gas Alliance
SAHF	South African Housing Foundation



SASDI	South African Shack Dwellers International Alliance
SDF	Spatial Development Framework
SJC	Social Justice Coalition
SPV	Special Purpose Vehicle
TCT	Transport for Cape Town
TDI	Transport Development Index
UCT	University of Cape Town
UDZ	Urban Development Zone
UITP	Union Internationale Permanente de Tramways
UNDP	United Nations Development Programme
UN-HABITAT	United Nations Human Settlements Programme
UNHCR	United Nations High Commissioner for Refugees
UNISDR	United Nations Office for Disaster Risk Reduction
USA	United States of America
US	University of Stellenbosch
VPUU	Violence Prevention through Urban Upgrade
WBCSD	World Business Council for Sustainable Development
WC	Western Cape
WCADI	Western Cape Aquaculture Development Initiative
WCFI	Western Cape Furniture Initiative
WCFFI	Western Cape Fine Food Initiative
WCTI	Western Cape Tooling Initiative
WDC	World Design Capital
WDC2014	World Design Capital 2014
WIPO	World Intellectual Property Organisation
WCED	World Commission on Environment and Development

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# 1 Introduction

## Introduction

In 2011, Cape Town achieved the extra-ordinary honour to be named World Design Capital (WDC) for 2014 (Cape Town 2014 2011), over rival bidders, Dublin and Bilbao. The designation of a city as World Design Capital is a biennial status conferred by the International Council of Societies of Industrial Design (ICSID). This designation does not reflect only on a city's past achievements in design, but on how a city is able to apply design to its present challenges to affect its future, and bring improvements in the spatial, socio-economic, and environmental spheres (WDC 2012).

Cape Town's main bid message – as reflected in their Bid document to the organising body of the World Design Capital programme, was ***Live Design. Transform Life***, and the spirit of the Bid was reflected in the sub-slogan: ***Separated by Apartheid, Reconnected by Design*** (CoCT WDC2014) – focussing on social and economic inequalities in the city. Cape Town's critical ecological sustainability challenges (global warming, climate change, rising sea-levels, and threatened plant species) (CoCT 2011) were however not highlighted in the Bid Book.

Cape Town's designation as World Design Capital 2014 presented the opportunity to examine the complex and shifting kaleidoscope and tensions between design and a sustainable city, political economics, development planning, leadership, and ethics. The exploration specifically focused on what aspects influenced Cape Town's choice of a slogan and approach for the WDC 2014 and whether this approach contributed towards sustainability. On a larger canvas, it offered the opportunity to view Cape Town through the lens of the confluence of technological revolutions and design movements, and to place the design of the city in historical and technological perspective.

Figure 1 underpins the main themes of this thesis. It depicts the synchronisation of, primarily the six technological revolutions with historic design movements, against the backdrop of three socio-metabolic transition periods and four industrial revolutions (discussed in Chapter 2). Included in the

diagram are the eight 'design cities' and four World Design Capitals discussed in Chapter 3 – Torino, Seoul, Helsinki - and Chapter 4 and 6 - Cape Town).

## 1.1 Rationale for the Case Study

The discourse on planetary sustainability has also focussed on urban sustainability, the loci of vast numbers of people. The concept of 'sustainability' refers to the three spheres of environmental, social and economic well-being (discussed in Chapter 3). As a case study, Cape Town's condition as a sustainable city will be examined and how planning, politics and the economic system have affected the city in the past and present, and has affected the choices made with regard to WDC 2014.

During 2013 an invitation was issued to all Capetonians, but particularly to designers, to contribute towards the year-long program of design events and actions that would form part of the World Design Capital programme, and that could impact on the long-term sustainability of the city. The process and initial outcomes of this will be traced. A further focus will fall on the City's commitment to World Design Capital 2014 and beyond, and the present rollout of a Western Cape Design Strategy (discussed in Chapter 5).

The lens of WDC2014 will be used to explore the contribution of Design<sup>1</sup> towards a Sustainable City – as the slogan for WDC2014 specifically aimed at addressing social-spatial sustainability (discussed in Chapter 6).

This will be an in-depth, qualitative case study of one city, the City of Cape Town. The specific context is that of a much-fêted, medium-sized, but growing African city (in population), aspiring to compete with other cities for investment, trade, tourism, and a reputation as a design and creative city. At the same time, the city is experiencing social, environmental and economic challenges, accompanied by sharp inequality and unemployment, and it is to be questioned if it could be referred to as a sustainable city, or even on its way towards being a sustainable city. Against an historic backdrop of Colonialism, Imperialism and Apartheid, and the current prevalent neoliberal economic system, the role that Design has played, is playing, and could play, is examined, with the focus then falling on this year-long intervention, of the city being conferred the status of World Design Capital 2014. The

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<sup>1</sup> Design, when written with a capital letter, refers to the overall field of study and application. See definition 1 of Design in Chapter 2.

enfolding context is the economic, political, social, environmental, and spatial spheres (discussed in Chapter 4).

Although anchored in many traditions, the city is constantly changing and in flux. The World Design Capital 2014 status was an intervention – with a possible legacy. Charles Landry's concept of a 'Creative City' calls for the emergence of 'urban innovators' to address the challenges of modern, globalised cities (Landry, 2008). The World Design Capital program offered a unique opportunity for designers to direct their creative thinking at sustainability issues - rather than solely at marketable products, services and ideas - building on the emphasis of the Bid Book to address the spatial and social separation in the city. The WDC project and the intention of the Bid were critical interventions in time and space against which the 'Creative City' concept could be examined.

As a result of certain WDC city projects, the premise could be posed for more effective and efficient ways to be found to bring the creative thinking and problem-solving abilities of designers to bear on the needs and problems within city-shaping and urban spaces, in co-operation with existing bureaucratic structures and development planners, and to examine whether the city as a whole could benefit and its unsustainable socio-economic issues could be addressed.

In this study, the City of Cape Town is the stage upon which this drama unfolds. The research required an exploration of the historical context of design's interaction with technological revolutions, the role design has played in the evolution of cities, the qualities of a sustainable city, tracing the present 'State of the City' of Cape Town, and the nature and possible outcomes of the World Design Capital intervention.

## **1.2 Background to the Case Study**

I have been living and working in Cape Town since 2000. I knew the city earlier – 4 decades ago, as a student at Stellenbosch University - before District Six was demolished, and forcible removals deposited not-white inner-city residents on the Cape Flats. I was fortunate to work in the design sector for 14 years, and to have developed a growing knowledge of design. The role of design has become the lens through which I view the city. And design has a far more permeating presence than first thought. Sustainability – social, environmental, economic - is my field of study and interest.

My interest in design grew by attending the annual Design Indaba Conference for 11 consecutive years, and experiencing what I perceived to be a community of designers, mainly operative in the

central city. The transdisciplinary approach offered in my Sustainable Development Planning and Management studies assisted me to make links between design and sustainable cities, development planning, governance, globalisation and citizenship, environmental leadership and ethics, complexity and systems theory, and applied economics. I included the aspect of design in a number of my module assignments and therefore read literature on design.

Experiencing the present-day reality of Cape Town has been an unfolding story – a growing awareness of the vastly different lives led by the city's inhabitants. It is also a constant journey of discovery to understand the different 'players on the field', who shape and influence the growth and destiny of the city. There are the usual suspects: the politicians, the municipal authorities, the business sector and various industries, the unions, the non-governmental organisations (NGOs), the community organisations – and their almost predictable struggles for power. There are also the wild cards: property developers, transnational companies, gangs, various Mafia groups – and designers. These have a more unpredictable and subtle influence on the city's psyche. And then there is Cape Town itself, the 'mother' city, with its own unique ambiance and presence, topographical form, natural assets, weather, and history. And there is its urban form – with deep colonial, and Apartheid footprints - that which justifiably could be called 'bad' design. As a result the city is deeply divided, socially, spatially, and economically (Pieterse, 2009, 2010).

Cape Town has much to offer in what is usually understood as design goods - fashion and jewellery, furniture, craft and décor, industrial product design, spatial design such as architecture, interior and landscape design, development planning, and infrastructure design; graphic and web design, and a slowly growing presence of the design forms of systems, service and interactive design. However, it is the more abstract manifestation of design in, for example, an economic or social system which virtually shapes all our lives and the fabric of the city.

### **'I was there – the start of my journey'**

I was privileged to experience the excitement, anticipation, roll-out and conclusion of World Design Capital 2014 first-hand. Her research journey took her down many paths, with a kaleidoscope of experiences, from formal events to informal encounters; from first-hand involvement to observation. These experiences influenced and shaped the ideas underlying this research.



## World Design Capital 2014 announced – October 2011



26 October 2011, Field Office, Barrack Street: Jubilant Capetonians at the announcement that Cape Town had won the World Design Capital 2014 Bid. (Bruce Sutherland, CoCT).

I was present on 26 October 2011, weirdly-early in the morning (to match the function in Taipei, six hours ahead of Cape Town), when the announcement was made of which city would be World Design Capital 2014. It seemed like all of Cape Town's design community was there. The anticipation was electric, the press of bodies in the small Wi-Fi café purposeful and forgivable, and the elation at the announcement of Cape Town's victory over Dublin and Bilbao absolutely heady (*WDC2014*). This designation followed hard work by the Cape Town Partnership compiling a Bid Book, lobbying the municipality and the design community for support, and years of design activism on the part of a number of key influencers in the city (explained in Chapter 7 and 8).

## Impromptu garden 'sit-in' – late November 2011



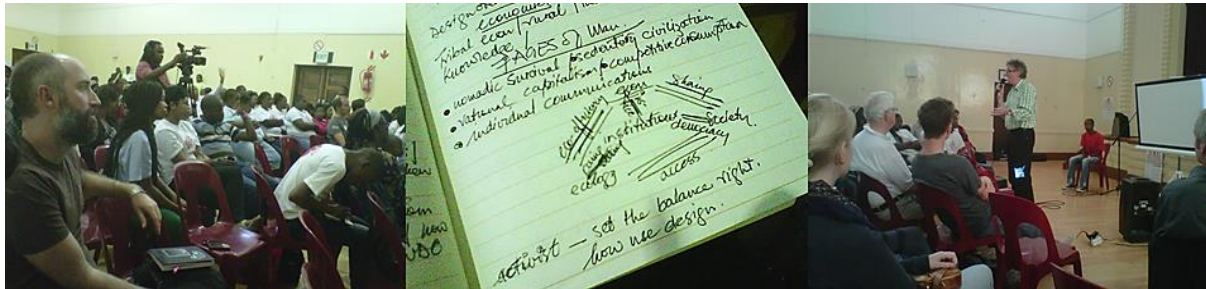
Late November 2011. Who does the city belong to? From across the street a few local workers and street people watched the impromptu 'garden sit-in'. One bolder street person ventured near, but was studiously ignored. (Photos by the author).

In November 2011 I watched a group of students, who had been roped in to stage an impromptu 'garden sit-in' in front of Oh Café in Harrington Street, with potted plants, lawn carpet, a guitar, hand drums and a xylophone. The purpose was to test the viability of a pedestrian-friendly environment in the area. I watched the onlookers with as much interest as the participants. The street was just an



ordinary, rather bland one – much used during the day by different city stakeholders<sup>2</sup>, but home to a specific group of street people. The question ‘who has the right to the city’ (which, of course, includes the right to design the city), and spectres of ‘gentrification’ hovered in the air.

### 5th annual Irene Grootboom Memorial Dialogues – November 2012



9 November 2012, Woodstock City Hall: Guest lecturer, Alistair Fuad-Luke introduces the concept of participatory co-design. (Photos by the author).

On 9 November 2012 I attended the 5th annual Irene Grootboom Memorial Dialogues, presented by the Social Justice Coalition and African Centre for Cities, where Alistair Fuad-Luke, professor of Emerging Design Practices at Aalto University, Helsinki, addressed the meeting in the Woodstock Town Hall on the merits and mechanisms of co-design and design activism. The edgy questions and discussions left no doubt that design could not be discussed from a theoretically-purist stance, but was a component on a political playing field. If design wished to contribute to ‘improving the quality of life’, it would have to address the challenges of the city.

<sup>2</sup> “27 people groups that I noticed over the past 7 years in the East City Precinct:

**Day time:** Small Business owners and workers - café’s and eateries, a laundry, a bottle store, a hardware store, Charly’s Bakery, Fruit ‘n Veg, The Book Lounge, and other | Light industries owners and workers – fashion ware, leather ware | Professional and administrative staff of NGO’s and other semi-government organisations (CCDI, CTFC, CTFI) | Owners of a range of small design-related business ventures and their designer staff (new kids on the block) | Property owners and developers | Government officials | Traders on the Grand Parade, who wheel their trolley-stands down Harrington Street from the storage facility in the morning, and back up again at the end of the trading day | Craft Producers attending meetings or training programmes at the CCDI, or delivering stock for a collective shop | Models and fashion designers visiting the CTFC | Students who frequent the internet coffee shop, Field Office, and the CCDI’s Product Support Space, as well as students from the Cape College | Tourists visiting the District Six Museum | The Police Force at the main Cape Town police station in Buitekant Street | Acquaintances of prisoners-in-custody in the judicial quarters, c/o Buitekant and Albertus Streets (the conversations are shouted between the street and the 3<sup>rd</sup> floor windows) | Wandering security guards, staff of the Central City Improvement District (day and night) | CCID Social workers | Tradesmen with delivery trucks | Pedestrians walking into the area from the main Cape Town CBD for business meetings or other purposes | ‘Strollers’ / job seekers / loiterers | An underlying criminal element | Definitely petty criminals (as I was working on this study, my car, parked in Buitekant Street, was broken into and robbed).

**Night time:** Owners and attendees of clubs, such as The Assembly and Mavericks | Actors and theatre-goers at The Fugard Theatre | Churchgoers of a large church in Darling Street (evenings and weekends).

**A place called Home:** People living in the area, in apartments above the street-level businesses | Strip-dancers at Mavericks, who work, live and tan on the premises | Older Homeless People | Foreign nationals, hoping for ad hoc jobs from the Parade traders | In the unforeseeable future a return of the previously displaced inhabitants of District Six” (Naidoo, assignment Complexity Theory and Systems Thinking 2012). [A group not mentioned were school learners].

## Design Policy Conference – October 2014



17, 18 October 2014, Cape Town Stadium, Design Policy Conference. (Cape Town Design NPC).

I was a delegate at the Design Policy Conference, the concluding official event of World Design Capital 2014, on 17 and 18 October 2014, where 30 speakers compared country experiences, discussed the merits of design strategies and policies, a change of design culture and design intellectual input to effect a more responsible approach to planet and people, the value of collaboration between business, government, academia, the design sector, and all sectors of society, and what practical steps would be needed to implement a visionary design policy. The Western Cape's Design Strategy was presented by Cape Craft and Design Institute (CCDI) executive director, Erica Elk. Closing remarks came from Vuyo Jack, the national department of Arts and Culture's Acting Director-General: "We need to have design thinking permeating through policy. We need to design business models that can adapt to the uncertain times we live in; we need to redesign our economic systems. The urgency is now, so we need to design our lives to get the results we need; to ask ourselves how we can use design to take radical economic transformation to the next level, to transform ourselves and to transform our country" (Design Policy Conference Report 2014).

## CCDI Creative Exchange – 4 February 2015



4 February 2015. Heinrich Wolff, Wolff Architects, discussing Architecture and Social Cohesion at the CCDI Creative Exchange. (CCDI).

The CCDI's monthly Creative Exchange in February 2015, for which I was master of ceremonies, focused on the topic of Architecture and Social Cohesion. Tony Elvin, a social entrepreneur, and visionary of the Langa Quarter project (dignifying an old township and transforming it into a local visitor mecca), recounted his differing experiences of firstly being warned against venturing into this township, and subsequently choosing to live there and becoming part of the community. The next

presenter, Heinrich Wolff, had, with his architectural firm, done in-depth research in the township of Dunoon, measuring living space, and what furniture filled it, the cost of living, and the socio-political and community dynamics. “To many people living in Cape Town, this is a horrible city”, he stated unequivocally.

### **A kaleidoscope of experiences and impressions**

These five incidences highlight the complex political and contested terrain, the many stakeholders, and the profound issues that design needs to address in its broader sense, to be relevant in the present time.

## **1.3 Problem Statement**

Cape Town, the literature will illustrate, is a Designed City, with aspirations to be a Design City.

The historic role that Design has played to contribute to the problems being experienced, and the present value of Design to address these problems, needs to be explored. The World Design Capital 2014 was a significant design intervention, and Cape Town approached this designation in a particular way, influenced by a number of aspects, including its socio-political-economic realities.

The literature review positions Cape Town as a medium-sized city, with a legacy of three and a half centuries of practices that has entrenched inequality, poverty and unemployment. At the same time, it is faced with 21<sup>st</sup> Century problems of urbanisation, the results of neoliberal economic practices, and severe environmental challenges. A successful tourism city, Cape Town seeks to position itself as a hub of creativity and design, able to capitalise on the promise of the knowledge economy, and be an attractive destination for investment (CCT 2009). The Bid for World Design Capital formed part of that strategy.

It would seem as if there is an active design community in Cape Town, which was invited to contribute towards a programme of design activities for 2014. A focal point of the Bid Book was wrapped up in the slogan *Live Design, Transform Life*, with the subtext *Separated by Apartheid, Reconnected through Design*. Designers make their living in the market economy. Drawing them into the development sphere, which has nobler values and aims, could be challenging. A distinction can be drawn between those designers who are directly involved in urban formation, i.e. development planners, civil engineers, transport planners, and environmental managers (both in the private and public sectors) and designers working in many other disciplines (such as interactive,

fashion, web, graphic, industrial design, to mention but a few). The contribution of these designers to developmental issues and urban transformation would be more oblique. They need to be empowered to operate in this space. They could encounter any number of obstacles - institutional, economic, vested interests - which would limit their contribution. The city would lose out on the lateral thinking and problem-solving abilities of its trained creative thinkers. It could be that the market-driven consumerist economy is a much more comfortable space within which to engage as a designer, than the highly politicised developmental arena.

These potential urban innovators need to rightly assess the unsustainable problems of the city as presented in the Bid Book and other city reports. Their creative ideas to address these issues need municipal endorsement, contractual appointments, and an enabling environment within which to test and implement ideas. It would not seem as if designers are *per se* financially-empowered entrepreneurs (social or otherwise), who can intervene independently.

Between the design community, city management and the developmental needs of civil society, there seems to be a Space in which to engage – but is this an empowered space? To what extent were designers able to contribute meaningfully – and with a long-lasting impact - to Cape Town's World Design Capital? It is possible that creative solutions could meet with resistance in a number of ways: city building and zoning regulations could block ideas; bureaucratic processes and silo-locked programmes might slow-down and block a smooth flow of permission to experiment with ideas; property development and corporate vested interests - within the neoliberal economic blanket engulfing Cape Town - might not welcome a change to the system if it impacted on their profitability and position of power (even if it improved the lives, income and living conditions of the poor).

The design status quo of Cape Town could be understood and interpreted in the context of unfolding historic global design movements which, in turn, could be correlated with unfolding technological revolutions and socio-metabolic transitions. Cape Town is a case study of a city that is a melting pot of various design movements, according to agendas dictated by the emphasis on economic growth, socio-political pressures, and technological advancement. At the same time, the city is at a confluence of three technological revolutions (the end of the 4<sup>th</sup>, the middle of the 5<sup>th</sup>, and the beginning of the 6<sup>th</sup>), while affected by the resource-availability of the 3<sup>rd</sup> socio-metabolic transition (land, energy, skills and knowledge) which will determine its path to sustainability.

## 1.4 Definition of Terms

In this study, the following terms will have these meanings:

**Apartheid** A political system - prevailing in South Africa from 1948 to 1994 - which legalised segregation and discrimination according to race.

**City** (with a capital C) The city administration of Cape Town, which shapes and manages development in the city.

**Colonialism** Whereby a country attains political control over another country, settles its own citizens in the conquered country, and uses that territory for economic exploitation.

**Complexity** As applied to systems – acknowledges a large number of differing components within the system, with dynamic, rich, and non-linear relationships. Knowledge by each of the parts about the whole system is localised to their short-range experience. The system has a history and context, is open, non-stagnant, with many feedback loops, in a constant state of non-equilibrium, and produces new, emergent knowledge and circumstances, greater than the parts.

**Consumerism** An order promoting the acquisition of material goods as an economic imperative, and instilling this lifestyle as a cultural value; dependant on planned and perceived obsolescence, short-life and disposable objects, and leading to unprecedented waste; closely associated with the Throw-Away Society.

**Design** The various design expressions and disciplines performed by creative individuals, also including the design of political-economic and social systems.

**Design Thinking** Design thinking involves data-gathering through direct observation, qualitative data, and empathy mapping, followed by an iterative process of divergent and convergent brainstorming to problem-solve, working through stages of ideation, prototyping, testing, and application. The ideal form of design thinking, as proposed in this study, is also closely linked to participative and co-design, and transdisciplinarity.

**Ethics** The branch of philosophy that deals with morality. Ethics is concerned with distinguishing between good and evil in the world, between right and wrong human actions, and between virtuous and non-virtuous characteristics of people.

**An Industrial Revolution** This is a dramatic shift in What is manufactured, and How it is manufactured, and will affect how labour is put to use.

**Modernism** An ideological movement, articulated in philosophy, art, architecture, urban form, and lifestyles, which indicated a break with tradition and a deliberate pursuit of modern ideas and styles, based on the view that the world could be understood and controlled through science and technology.

**Movement** Characterised by an inspirational leader(s), who has a following, with a shared ideology, goal and activities. The outcomes depend on the nature of the cause.

**Neoliberalism** A political-economic approach to state management, based on the belief that a free market system will optimally order the distribution of goods and services. Neoliberalism defines the State's most legitimate purpose as safeguarding commercial liberty and property rights, and is applied both nationally and internationally. Under this regime, transnational corporates have flourished.

**Political economics** Derived from the Greek, this term refers to the ‘management of the state’. In this study, it reflects how the philosophies, ideologies, laws and policies that govern a state, affect the system of production, distribution and exchange.

**Resilience** The ability for something to recover, spring back into shape, adjust, after a shock, trauma or difficulty; referring in this study to resilience (which includes adaptation) in a city despite economic, climatic, political, cultural or other setbacks.

**Socio-metabolic Transition** A socio-metabolic period refers to the availability of materials and energy in a particular timeframe, in a natural and social system. As new material and energy resources become available, or the existing stock becomes scarce, a transition to the next socio-metabolic period is created or forced.

**‘Space’** In the context of this study, this refers to an enabling environment, in which creative ideas can flourish.

**Sustainability** This term needs to be understood in the context of its 3 pillars: Environmental, Social and Economic Sustainability (Gilbert et al 1996). Chapter 4 discusses the focal points of each pillar, and the practical implications as they overlap their neighbour-concepts, to attain full sustainability.

**Technological Revolution** This signals moments in history when a sufficient build-up of new technology and its application forces a dramatic shift in the way material life is lived, in social interactions, in culture, production, transport, finances, and in values.

**Transdisciplinarity** Is based on 3 postulates: that there are different levels of reality and therefore perception; that between different disciplines of knowledge - and beyond - there is a space that is full of knowledge; and that the relationships between all these touch-points are complex. Transdisciplinarity tackles real-world problems, too complex to be addressed by any one discipline or experts alone. The Process of transdisciplinarity is therefore, collaborative, participatory, integrative, coproducing – of new, emergent knowledge and design – jointly, by the community, by experts, and by politicians, *with not for* society.

## 1.5 Research Question and Objectives

### Main Research Question

What aspects influenced Cape Town’s choice of a slogan and approach that connected social inclusion, economic development and sustainability for its World Design Capital 2014 programme? Could this approach be understood in the context of evolving global design movements? And could this be correlated with advancing technological revolutions and socio-metabolic transitions? Did the slogan and approach have a lasting contribution to sustainability?

In the case study of Cape Town, and given its history, legacy, wicked problems, the complexities inherent in a 21<sup>st</sup> Century African city, and the institutional and other power structures in place in the city, the one-year intervention of World Design Capital 2014 will be explored, and the possibility that



this was an opportunity for Design to begin to contribute towards addressing the social, ecological and economic sustainability problems of the City of Cape Town.

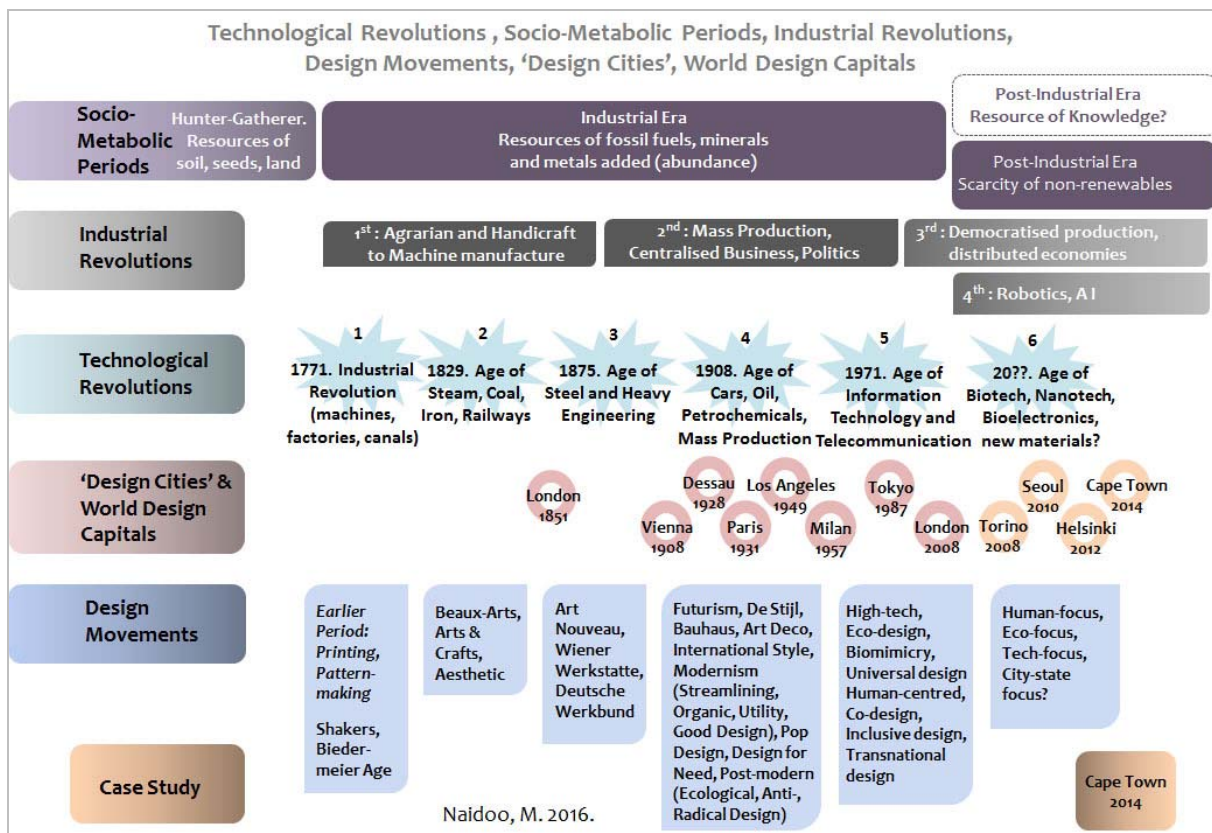


Figure 1. Technological Revolutions, Socio-Metabolic Periods, Industrial Revolutions, Design Movements, 'Design Cities', World Design Capitals- as the lens through which to read Cape Town's design status quo. Figure constructed with information from Fischer-Kowalski (2009), Brown (2014), Perez (2007), Billen (2008), Fuad-Luke (2009).

## Objectives and Sub-questions

The objective of this case study is to explore the research question by seeking answers to a number of sub-questions:

- What are the correlations between historical Design Movements, Technological Revolutions, Socio-Metabolic Transitions, and Industrial Revolutions and what has been the sustainable nature of the outcomes of different historical Design Movements? (Chapter 2)
- What is the relationship between Design and the city, as tracked through the evolution in the design of cities, and the nature and impact of Design in certain 'Design Cities' and World Design Capitals? (Chapter 3)
- What are the socio-political-economic realities of Cape Town and is Cape Town on its way to becoming a sustainable city? Can the influences of Design Movements, Technological Revolutions and previous 'Design Cities' be traced in Cape Town's development? Are there aspects or dimensions of sustainability that are not being addressed adequately? (Chapter 4)
- Who is the Cape Town Design Community and what role did they play in shaping the approach of the WDC 2014? Is there a 'Space' within which Design and design thinking can contribute to the overall sustainability of Cape Town? (Chapter 5)

- Which aspects influenced the choice of approach for WDC 2014 and how did World Design Capital 2014 address the issues of sustainability in Cape Town? (Chapter 6)

## 1.6 Importance of the study

The study provided the opportunity to juxtaposition historical design movements with technological revolutions, which had not been encountered in the literature research.

Losing sight of Design's transdisciplinary links with 21st Century urbanisation, political economics, and the 3 spheres of sustainability could weaken the effectiveness of a deliberate 'design intervention' which might have intended to benefit all aspects of the city. This has a number of implications:

- The success of a deliberate design intervention (and the accompanying investment) needs to be judged against the challenge of complexity;
- Crucial areas of intervention or areas to negotiate might come to light;
- The 'neutral ethics' of Design could be questioned – does she smile equally on the 'have's' and the 'have-not's', the high and the low, the left and the right? This might point to the importance of sustainable values being embedded and emphasised in policies and strategies to encourage design application.

An examination of the case study could point towards the need of a more impactful contribution from the city's trained creative citizens towards solving some of the pressing problems facing Cape Town, using their particular design skills and abilities. Simultaneously the city managers could be sensitised to the real potential of Design to approach problems from a transdisciplinary, participatory, coproduction, design-thinking perspective, which could open the way for more enabling legislation and cooperation between the municipality and creative citizens.



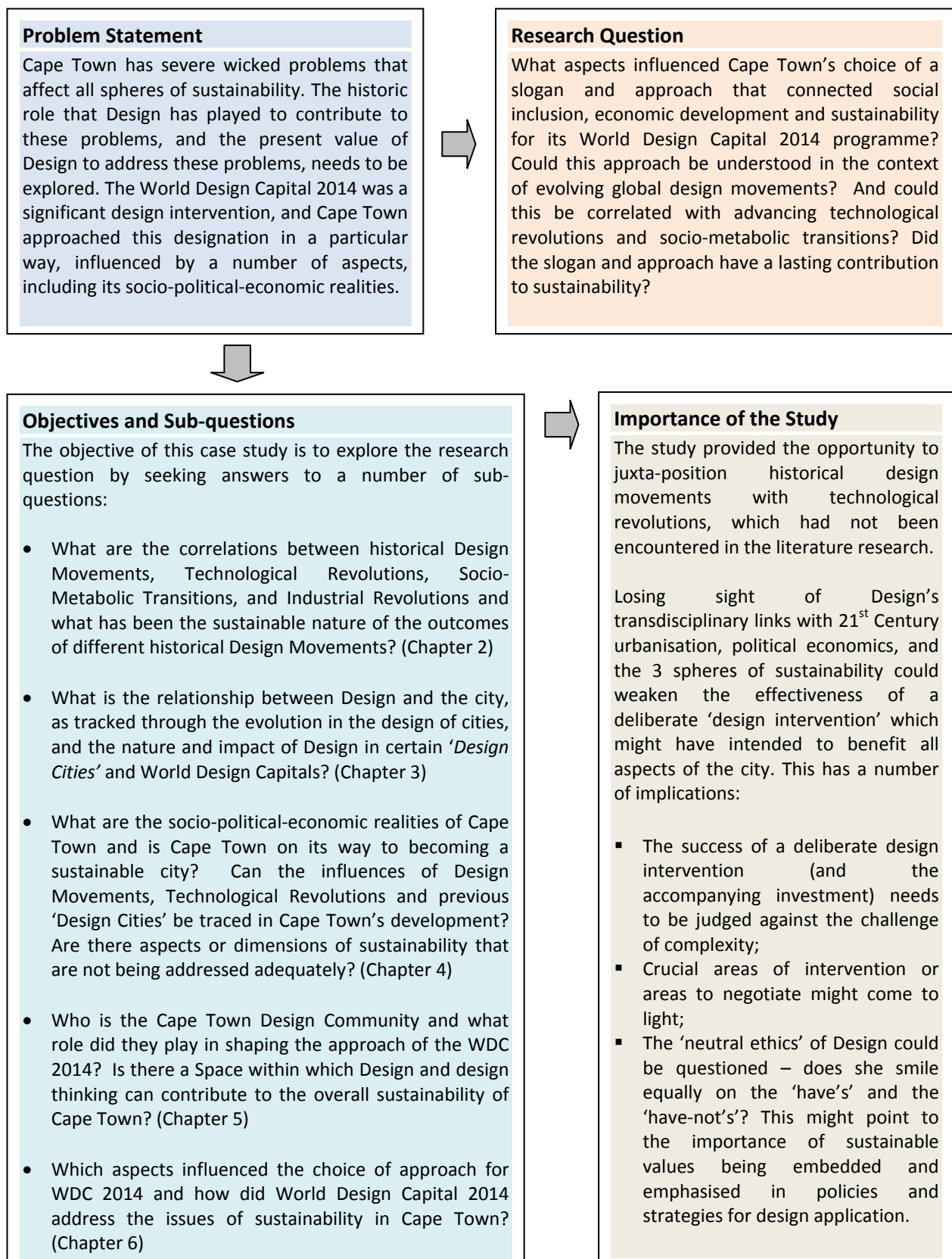


Figure 2. Problem Statement, Research Questions, Objectives and Importance of the Study.

## 1.7 Research Design and Methodology

The research is presented as a case study, with rich detail and variance, set in a particular context, and then employs the methodology of deductive inference, that is, clarifying concepts through “the deductive derivation of its constitutive meanings” (Mouton 2001), while the mode of observation was participant observation, semi-structured interviewing, and documentary sources.

In choosing the research approach and methodology, this definition from the Merriam-Webster’s dictionary (2009) is useful: It defines a case study as -

“An intensive analysis of an individual unit (as a person or community) stressing developmental factors in relation to environment”.

The key words in the definition point to an in-depth study of a defined and bounded unit (Stake 2008), taking developments over time into consideration, and within its enfolding context.

In defence of the case study, and against the critique that theoretical knowledge is more valuable than concrete case knowledge, Flyvbjerg (2011) maintains that “Predictive theories and universals cannot be found in the study of human affairs” (Flyvbjerg 2011), particularly in the case of wicked problems.

Flyvbjerg contrasts the viewpoint that a case study does not contribute to scientific knowledge (as one cannot develop theories or generalise applications from it), to a viewpoint where this is indeed possible. A case study is no less or more inclined to confirm the researcher’s bias; the in-depth study could very well highlight false assumptions (Flyvbjerg 2011).

Although it will unfold that Cape Town has a unique context, there are many cities that would find touch points with its realities, and could learn from its experiences. More importantly, says Flyvbjerg, “... it is not desirable to summarise and generalise case studies. Good studies should be read as narratives in their entirety” (Flyvbjerg 2011).

Mouton (2001) calls attention to the strengths and weaknesses of this type of research. The strengths of a case-study are that it has high construct validity, contains in-depth insights, and establishes rapport with research subjects. The weaknesses of a case-study are that it lacks the aspect of generalisability of results, measurement is usually non-standardised, and data collection and analysis can be very time-consuming (Mouton 2001).

The Association of African Planning Schools (AAPS) provides pointers to the case study methodology in their Case Research Toolkit (AAPS. u/d):

1. Be personal - case selection is partially determined by one's personal interest in an issue.
2. Other criteria for selecting a case study would be the probable richness of a case for analysis and learning, and the degree to which its findings would be conducive to generalization, or not.
3. A paradigmatic case (i.e. one with metaphorical and prototypical value) provides an accessible metaphor for understanding the extremely complex intersection of discourse, action, and context in society.
4. A good story or narrative reflects the complexities and contradictions of real life. Producing a narrative always begins with empirical reality: actual events in a given set of circumstances. The dialogical attitude is based on the idea that no single voice can claim final authority in matters of knowledge and truth.
5. From a narrative, key questions will emerge. How did a state of affairs historically come about? How were events and actions perceived and interpreted by different actors? How were subsequent actions affected as a result? Starting with an examination of reality, and allowing theoretical considerations to emerge as the analysis proceeds, requires a particular sensibility on the part of the researcher-narrator. Thus Flyvbjerg notes that, "in order to stay close to the complexities and contradictions of existence, case researchers ... demur from the role of omniscient narrator and summariser in favour of gradually allowing the case narrative to unfold from the diverse, complex, and sometimes conflicting stories that people, documents, and other evidence tell them" (Flyvbjerg 2001:86).
6. A case study, even when completed, should not be thought of as 'a closed case'. Therefore good case study narrations use direct quotes extensively, but do not over-analyse their content.
7. Good stories are journeys, which could be initially disturbing, but then lead towards a cathartic resolution. Case studies progress from 'harmony' through 'conflict' to 'harmony at a higher level.'

Applying these pointers to my case study, I have the following comments:

1. I have a personal love and interest in the welfare of Cape Town. My involvement in the design sector of the city has deepened my understanding of that sector.
2. Overlaying Design onto Cities and Sustainability has provided a rich and complex study.
3. The exploration of synchronising design movements to technological revolutions and socio-metabolic transitions has provided a much larger context through which to interpret the city.
4. The city typifies many other cities caught between developing and developed world realities, and therefore provides a fitting and accessible metaphor for comparison and learning.
5. The study reflects the many actors in a complex and contradictory web of structures, events, priorities and actions, of which Design itself is not the least important.
6. After defining the complex issues of design, city shaping and sustainable cities, and a few historic 'Design Cities', the narrative picks up with a 'State of the City' reflection of Cape Town, and then explores a perceived 'design community' and the actual event of Cape Town World Design Capital 2014. The case narrative unfolds to tell its own story.
7. This case study, it must be acknowledged immediately, is not a 'closed case'. The story will continue.
8. The conclusions arrived at are merely a deeper realisation of the complexities involved, and the complicated pattern of issues that intersect between the actors.

## 1.8 Collection of data

Information for the Literature Review – such as the historic interaction of technological revolutions and design movements, sustainability, sustainable Urbanism, political-economic systems, case studies of design cities, and an examination of Cape Town as a sustainable city - has been sourced and referenced from books, articles, catalogues, reports, speeches, and documentaries. Particular themes or topics, such as Modernism, Consumerism and Neoliberalism stood out; as systems, they are deeply entrenched, have profound repercussions on society and the environment, and are difficult to shift.

Data for the Case Study has been sourced from hybrid sources, such as documentary material, news bulletins, website research, marketing material, presentations, surveys, imagery. Empirical direct and indirect observation and experience have been added, by working in the creative industry network in a particular geographic area of Cape Town for 14 years, participating in many events and activities (organisational projects, attending the annual Design Indabas, Design Dialogues, the WDC announcement party, the Design Policy Conference, various presentations and workshops), and managing one of the projects of the WDC program. A few semi-structured interviews were conducted with involved individuals, to gain background information and perspectives.

## 1.9 Chapter Outline

- Chapter Two launches the LITERATURE REVIEW with an examination of the history, categories, applications, definitions, and motivations of design. Critically, in this chapter, Design Movements through the centuries are mapped opposite the five major Technological Revolutions, to track the socio-technological action and reaction between society, design, and technology.
- Chapter Three provides a historic overview of the evolution of the design of cities, examining their purpose, and how they were and are being shaped. The sustainable city is particularly defined and possible paths of transition examined. A 2008 exhibition, *'Design Cities'*, reflecting cities critically involved in some of the technological revolutions, as well as the first three World Design Capitals, are explored, to further examine the relationship between 'design' and 'city'.
- Chapter Four presents the CASE STUDY, with a look at the 'State of the City' of Cape Town. Reference is made to the impact of the technological revolutions and design movements upon the city, and whether the various modes of city formation can be traced in Cape Town.

A comparison of similarities and differences between the '*Design Cities*', the previous World Design Capitals, and Cape Town is made.

- Chapter Five describes the design community of Cape Town.
- Chapter Six maps the roll-out and progress of the World Design Capital 2014 in Cape Town.
- Chapter Seven presents Observations and Conclusions.

# 2 Design is

## Introduction

The concept of Design needs some explanation - its origin, development, manifestation, and impact. For there is more to design than meets the eye. A brief look at the historical progression of design will be helpful.

The activity of designing is as old as humankind itself. Heskett (2002) refers to the ongoing enquiry as to when humankind began to shape its environment into something more personally habitable. The dexterity of the human hand is the starting point, being -

...a remarkably flexible and versatile limb, capable of varying configurations and functions. It can push, or pull, exerting power with considerable strength or fine control; among its capabilities, it can grasp, cup, clench, knead, press, pat, chop, poke, punch, claw, stroke....

Heskett 2002: 14.

Any 'tools' that were found or shaped were undoubtedly extensions of hand capabilities. Found objects that could copy and strengthen the functions of the hand were employed.



Hand | Conch Shell

[www.powerful-food.com](http://www.powerful-food.com) | [www.thearubahouse.com/seashell](http://www.thearubahouse.com/seashell)

Designs were copied from nature (such as rain protection from a large tropical leaf). New shapes and materials were employed to create new objects – for example, storage vessels from clay, land-tilling equipment from wood, eating utensils from metal. Nature's natural forces – animal power, wind, water, the downward force of inclines – were harnessed as technologies to move heavy objects in difficult terrain or to drive windmills or water wheels, among other applications.



Orangutan and banana leaf. [www.dailymail.co.uk](http://www.dailymail.co.uk)

The design of useful objects can be traced in any ancient civilisation and has continued unabated, in tandem and responsive to “...technological, organisational, and cultural changes” (Heskett 2002). Available local material, climate, topography, and exploration, all influenced the advances that were gained.



*Ancient clay pot | Three-legged iron pot, since Iron Age, refined 1600 .  
www.alhambraantiques.com |  
www.ebay.com/bhp/cast-iron-cauldron*

Leaps of imagination occurred, as in the design of a permanently-rotating wheel, or the construction of an igloo – shapes and functionalities that did not occur in nature (Heskett 2002).



*Sumerian flour-grinding wheel | Igloo.  
www.allmesopotamia.tumblr.com | www.forces.si.edu*

Creation in the abstract realm or deep innovation, was explored – the ‘design’ of languages, alphabets, different typographies, and following that, over time, abstract concepts such as grammar, structure, semantics, data collection, analysis, research, theories, discourse, strategies.

## 2.1 From instinctive... to deliberate... to a discipline

The Industrial Revolution, from the mid-18<sup>th</sup> Century to the mid-19<sup>th</sup> Century resulted in radically-changed forms of energy (steam and electricity) city formation (the 1<sup>st</sup> Wave of Urbanisation), methods and materials of production, end-products, content of work, lifestyles, culture and values. It was during this time that Design, as it is now understood, was born.

In previous eras – at least 77 centuries - there had been some separation between the action of designing and making, for example weavers creating tapestries to the design of a guild-master. Now the separation between the functions of conceptualising and producing widened. Steam- and electricity-powered factories, the separation of functions, the assembly line, and the use of steel and other materials, demanded designs for each machine, tool, component, and end-product. Machines took on the function of creating, while people in the factories performed repetitive actions (Billen 2008; Heskett 2002). From the birth of the industrial era in the mid-1700s to the present –about 265 years – life, work, ideation, making, customs, transport, trade, finance, and values profoundly altered.

London saw the establishment of the first design school to equip artists with design skills, and as designers began to specialise, design careers were created. With the establishment of a Design

Museum (the Victoria and Albert), and an Exhibition (the Great Exhibition of 1851), the concept and discipline of Design began to gain commercial as well as cultural significance (Billen 2008; Heskett 2002).

## 2.2 Categories of Design

In the last two-and-a-half centuries, design has become a complex discipline, operating in the space between functionality and aesthetics, societal values, aspirations, and commerce. In the broadest understanding design also touches on political objectives and the shaping, even engineering, of societies.

Design is expressed in many specialised design forms, broadly grouped under the categories of Product Design, Communications Design, Spatial Design, Service Design and Systems Design (Fig 3). Design capabilities are included in the skills set of many other careers, such as engineers, urban and transport planners, behavioural scientists, and politicians (Heskett 2002, PGWC 2013). These distinctions become important in terms of careers, education, and applications in an economy.

The output of Product Design is object-making; that of Communications Design image- and message-making; of Spatial Design place-making; of Service Design experience-making; and of Systems Design the output is system-making (PGWC Design Strategy 2012).

In recent times there has been a proliferation of design expressions, apart from those mentioned in Figure 3, which could group under the main categories. For example: Behavioural design, Configuration design, Experiential design, Instructional design, Lighting design, Motion design, Research design, Presentation design, Process design, Set design, Software design, Sound design, Survey design, Visual design... and more.



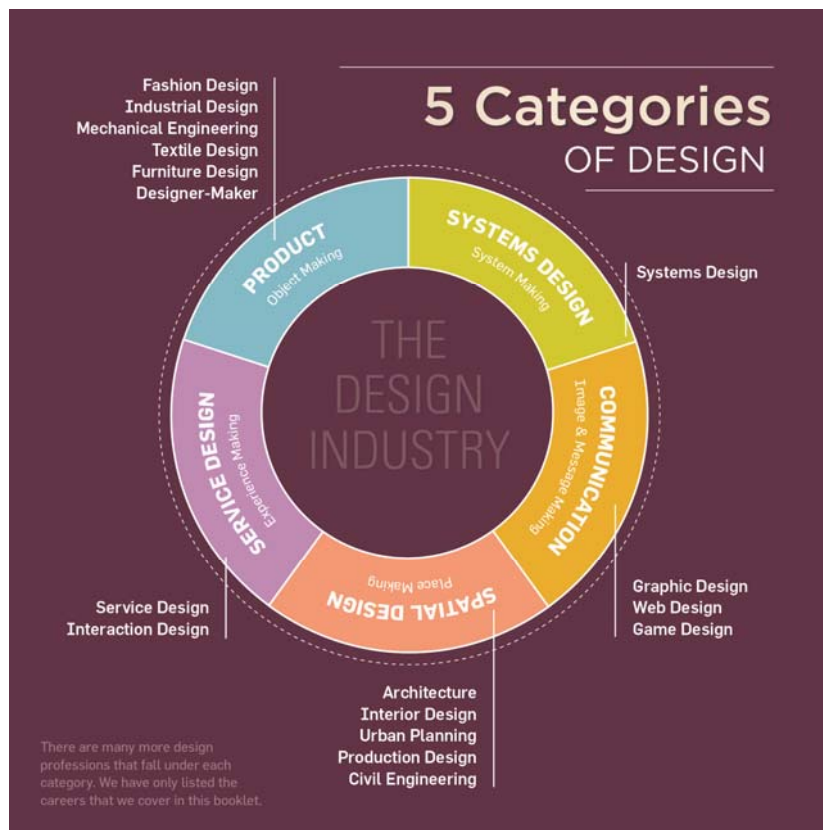


Figure 3. Five Categories of Design (CCDI Career booklet: Wanna be a designer?)

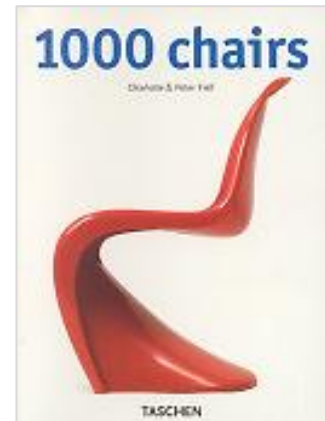
A more descriptive examination of these five categories of design is required.

### Product Design

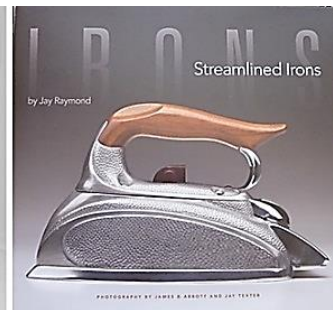
*The Language of Things*, comments on the proliferation of objects that surround us – from small items such as toothbrushes and spoons, to tools and implements, to fashion, décor items and furniture, to cars, trains, boats and planes, to mega mining equipment, to an over-supply of ‘fad’ objects. We are “...a world drowning in objects” (Sudjic 2008d: 4).

Design emerges in the exhilarating realm of imagination, creativity, innovation, and risk, orchestrated by skilled innovators - the ‘wild children’ of society - not bound by traditional strictures of what is possible or not. Their boundaries are the limits of the production material, how far they can push conservative clients and market taste, and the budget. They are adventurers, experimenters, and trendsetters, delicately riding the edge of those principles and methodologies that have been determined for their particular design discipline. It can be an intoxicating world, a fertile field for egos and icons to grow. Oh - to simply design for design’s sake!

There are objects that fascinate, entice, and challenge –‘must-designs’ - such as Chairs and Lights. Every famous industrial designer, architect, and even some fashion designers, have attempted an iconic designer-chair. “More than any other piece of furniture, the chair has been subjected to the wildest dreams of the designers. The particular curve of a backrest, or the twist of a leg, the angle of a seat or the color of the entire artifact all reflect the stylistic consciousness of each era”, is the introduction to the many-times republished book, *1000 Chairs* (Fiell 2013). A meander through this book leaves any art-sensitive individual aglow with the marvel of diversity, ingenuity, shape, form, texture, ambiance, expression, and meaning.



For objects have a language of their own; they are not merely functional. They also attain an elusive identity, associated with their application and cost, the more expensive and elitist objects acquiring an aspirational status. Objects have symbolic



*Levi's 'Let your body do the talking' campaign* | *Book cover: Streamlined Irons by Jay Raymond.*  
[www.popsop.com](http://www.popsop.com) | [www.streamlinedirons.com](http://www.streamlinedirons.com)

meaning: a Levi jeans, for example, would reflect the wearer's attitude and way of life – free, adventurous, informal. In the 1950s the use of streamlined household objects, like an iron, would indicate the user's commitment to progress and the future, while someone using that same item in 2015 would indicate historic appreciation and nostalgia.

## Communications Design

Since early times, Communications Design has been employed to establish personal and tribal identity – body tattoos or scarification; tribal colours, such as the Scottish tartan, Kente cloth from Ghana,



*Maori facial tattoo* | *Scottish tartan* | *Masai warriors favour red.*  
[afkinsider.com](http://afkinsider.com) | [5election.com](http://5election.com) | [tripwow.tripadvisor.com](http://tripwow.tripadvisor.com)

cable knitting patterns for Irish fishermen, the Xhosa stripes-and-buttons clothing adornment, the red clothing and head adornment of the Masai – symbols, colours, headgear, shields, banners - all expressions of tribal and cultural identity.

This practice is still prevalent today – in sports teams, in cultural groups, even in alternative groups, to indicate their ‘difference’.

*A modern-day clan. [www.newsbisquit.com](http://www.newsbisquit.com)*



From tribes to nations – and communications design applied to national identity plays an enormous role in commerce and industry, in national pride, and in the posturing and balance of power between nations. A nation’s ‘way-of-life’, values, cultural expression, its different times, eras, and the current *zeitgeist* are depicted through its designed messages and symbols.

*National flags.  
[www.123rf.com](http://www.123rf.com)*



*Twentieth Century Design* offers a fascinating exposé on Design’s role in the expression of national identity and political aspirations (Woodham 1997: 87-110). Communications Design in the form of signage, symbols, logos, branding, print and film advertising, books, newspapers, magazines, websites, games, video-clips and more, are now so ubiquitous that we cannot imagine life without them... but do we evaluate their impact on our values and perceptions?



*National identities captured in architecture, food, and unique wildlife.  
[www.history.com](http://www.history.com) | [thebig835.deviantart.com](http://thebig835.deviantart.com) | [www.7-themes.com](http://www.7-themes.com)*

## Spatial Design

“The reality that architecture can create is Space” is the often-quoted saying of Gerrit Rietveld (Brown 1966). Spatial Design, therefore, is the creation of Space and Place. ‘Space’ is made for many purposes – to live in, learn in, work in, play in, meet in, share in; space that divides, space that unites; space that defines oneself in relation to others (such as Colonial, Industrial, Apartheid, or Creative spaces); space in which to contemplate, space that creates desire, space that urges one to purchase; formal space, informal space, ‘smart’ space, occupied space, contested space, convoluted space, sympathetic space; space to impress, space to intimidate, space that welcomes, space that is ego-designed, space that is co-created; space that is imposed, space that develops organically.

‘Place’, on the other hand, is space with deep identity or memory, that can be felt, and has specific connotations to specific people. A ‘sense of place’ donates emotive and cultural value (Cross 2001).

We are vitally influenced by the spaces and places through which we move. And yet, citizens have relatively little influence over this – while governments and municipalities exercise enormous influence over the work done by urban planners, architects, and transport and landscape designers. It is impossible to ignore the links between urban design and political economics. Chapter 3 will examine this in more detail.



*Space in which to think.*  
[northeastbrewersalliance.org](http://northeastbrewersalliance.org)



*Informal space.*  
[www.carsintro.top](http://www.carsintro.top)



*Convoluted space - The Judge Harry Pregerson Monster of Los Angeles.*  
[www.twicsy.com](http://www.twicsy.com)



*Sympathetic space - Mapungubwe Info Centre.*  
[www.bdlive.co.za](http://www.bdlive.co.za)

## Service and Systems Design

These two forms of design, although practiced and present with us for very long, have only recently – in the last 20 years – gained a distinctive definition (Manzini 1993, as quoted by Maffei 2005). Where there are products, there usually is a service; information, exchange, maintenance, repairs. In fact, very few services are NOT connected to physical products. Health services, for example, still use medical equipment and medication; still need ambulances that need gas; still need hospitals and clinics, with huge budgets for logistics. Bank services might appear to be abstract, but are intricately linked to manufacturing, trade and industry. In a pure form, less linked to physicality, one can probably find service design only in the digital domain, of which Facebook, Google and Call Centres are examples. But even these require head offices, furniture, enormous data farms, hardware, software, and staff – maybe less impactful in environmental terms, but not entirely ghost presences.

Interactive design is a vital sub-component of Service Design – providing the interface between humans and technology. Intuitively designed computers, aeroplane consoles, sound and visual equipment, production machine management systems, enable a smooth co-existence between humans and the most sophisticated designed work aids. Interactive design is also applied for persuasive purposes, such as online gaming, or online shopping.





*Call Centre services | Facebook, the Ultimate Service | Interactive design | Warehousing, and complex systems design*  
[infinitecontact.com](http://infinitecontact.com) | [socialmediacentral.blogspot.com](http://socialmediacentral.blogspot.com) | [spacefellow.com](http://spacefellow.com) | [www.bgr.com](http://www.bgr.com)

It is not co-incidental that the emergence of the Digital Age in the 1980s has been followed by an intense focus on Service and Systems Design – both becoming more advanced because of the capabilities of information technology and data management. The two are often interlinked: a health care system goes hand-in-hand with services; basic service delivery to citizens – water, sanitation, waste removal, energy – depends on complicated systems management to be in place. The most complex systems operate the massive warehouses and intricate movement and distribution of food, goods, and commodities – the ‘raw material’ of the retail sector, and local and international trade. Effective city transport or financial services depend on intricate Systems Design. And ultimately, the overarching political-economic frameworks within which we all live and move, have been ‘system-designed’ by politicians, economists, financiers, entrepreneurs, academics – and to some lesser degree the citizenry.

### **Socio-political Design**

In the broadest sense we need to consider Social Engineering as a form of system-creation – socio-political systems which incisively affect the lives, status, self-image, capabilities and value of people groups and individuals. In this sense governments and politicians act as deliberate or accidental designers – the outcomes resulting, more frequently than it should, in systemic and institutionalised oppression. Examples are Colonialism from the 16<sup>th</sup> to mid-20<sup>th</sup> Centuries, Nazism and Social Darwinism from about 1919 to 1945, Apartheid and the Homelands policies from 1948 to 1994, Mao’s Cultural Revolution from 1966 to 1976, and the transnational systems of governance of the International Monetary Fund and World Bank through required structural adjustments for emerging economies since the 1950s, through which “many Global South countries have lost much of their local industries and competitive advantage, and are now ‘nations specialising in being poor’” (Naidoo 2013, Reinert 2009). A much more subtle form of oppression manifests through the creation of Consumerism since the 1940s, and will be discussed in paragraph 2.6. Neoliberalism too must be questioned; although presented as minimal government intervention, Gray maintains that it is more pertinently “...an experiment in utopian social engineering undertaken by rationalistic planners” (Gray

2002: xxi); and Harvey (2003) refers to it as “accumulation by dispossession”. In socio-political design ‘wrongs’ are not so easily un-designed; it often takes a revolution to bring about a shift.

Design affects our lives in concentric circles: there are those designs, (object, communications, spatial, service and systems) which affect individual lives in the finer weave of life; there are those designs which form the greater backdrop to society and societal activities, such as the physical form of cities, towns, and transport networks; and there are those designs which (less visibly) overarch history and events with systemic control, such as political, economic, financial, or cultural systems.

In a research study conducted for the Western Cape Design Strategy in 2012, the design sector was requested to categorise themselves under Product Design, Communications Design, Spatial Design, Service Design and Systems Design. These categories are an indication of where the design talent is being invested in the economy. A significant portion of design services are provided to the retail and manufacturing sectors. Chapter 5 will examine this in more detail.

## 2.3 A definition for Design

Definitions of design abound. I am considering just two:

**Definition 1.** “Design is to design a design to produce a design” (Heskett 2002, pp 5).

These three nouns and one verb are to be interpreted as follows - a noun (*Field of Study*), a verb (*action/process*), a noun (*the subject: a plan, map, blueprint, formula*) and another noun (*the object/end-result: a product, message, space, service, or system*).

This simple sentence encapsulates the debate between design as a process, or as an end-product. The current emphasis on sustainability, scarce resources, waste and finite land-sinks makes it important that design is not just perceived as the creation of more ‘stuff’; but that its value is recognised as a management tool, an iterative process towards greater efficiency.

This definition touches on the ‘what’ and ‘how’ of design, and by inference the ‘who’ of design. But little can be gathered about the ‘why’ of design. And while broad consensus exists that design is about finding solutions to ‘problems’ - to specified challenges, situations, or needs - in a complex world closer attention needs to be paid to the motivation behind design actions. This point will again be touched on in point 2.6 (*Design and Ethics*).

**Definition 2.** The definition adopted by the Cape Craft and Design Institute reads as follows, with an important footnote referring to the ethical outcomes of design:

(Good<sup>3</sup>) design is an activity that uses creative and iterative processes to take account of a range of factors and needs in the development of innovative products, services, environments and communication, in response to the human condition and society's needs.

PGWC, Design Strategy for the Western Cape 2012.

## 2.4 Design maturity, a culture of design, and design leadership

Within an individual organisation, city, or country, design can be understood and applied in a progression of steps that lead to 'design maturity'. A conceptual illustration of a Design Ladder has been developed, (Figure 4), reflecting the starting point as Non-design (or unawareness of the contribution, value or processes of design, and therefore no consideration of the end-user); followed by design being perceived as Styling (superficially 'making things pretty', part of the aesthetic value-add to a product - surface patterns, packaging, objects arranged as décor); progressing to an appreciation of design as an integrated and iterative Process (requiring resources, multi-disciplinary input, and a user-centred focus); and eventually being applied as Innovation (involving design thinking and strategic application to all aspects, a vital part of cultural expression, and an essential tool towards ... whatever goals that organisation, city or country has set itself).

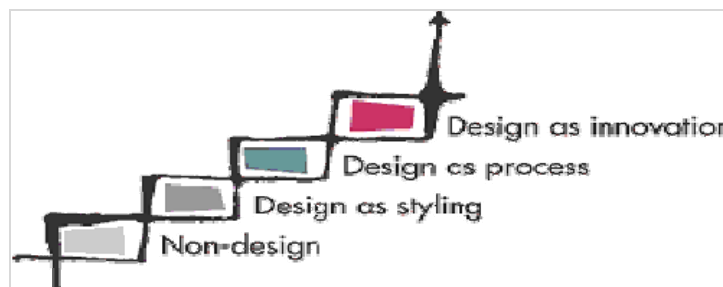


Figure 4. The Danish Design Ladder. [connecta.typepad.com](http://connecta.typepad.com)

But design maturity cannot only be measured to the degree that Design has achieved its highest expression according to the Design Ladder. In the light of Design's immense influence, and the current global crises, design maturity has to be measured in terms of how a design community is

<sup>3</sup> Any discussion about the definition of design invariably involves a diversion into a discussion on what is "good" design. Our assumption is that "good" design results in an outcome that successfully meets our current needs of social inclusion, economic transformation and sustainable growth. It could be argued that if one follows the process and truly takes into account the factors included in our definition above, then only "good" design will follow. This is not necessarily the case. So we have kept the value judgment in our definition – to keep us focused on excellence (PGWC, Design Strategy for the Western Cape 2012).

stepping up to the responsibilities of the three spheres of sustainability – how their outcomes are affecting people, planet, and profit; who the beneficiaries are, and who the victims.

“Design culture can be understood as a co-production of ideology and practice” (Fallan 2010), thereby reflecting the close interaction that exists between prevailing thinking and values, as adopted by the design profession, and the way those designs are applied and experienced in everyday life. Such a design culture changes over time, as the prevailing overarching culture changes; the larger cultural context influences those involved in design, and they, in turn, influence the culture.

Neoliberalism as an overarching system, for example, has entrenched a particular form of design culture (linking Consumerism to Capitalism and then to Democracy), not beneficial to the wider community. This needs to be counter-acted by a design activism, which is “not a boycott, strike, protest, or other political act”, but by intervening in our very livelihoods, in which design has already embedded itself (Markussen 2013). A design culture that focusses on sustainability could bring about a sustainability revolution, and could therefore act as an agent of reform - as Neoliberalism and sustainability cannot co-exist (Fuad-Luke 2009).

Most designers are not unaware of global challenges. They espouse mantras such as ‘Design can Save the World’ and agree with the thinkers and philosophers that they have a critical role to play in the future of the planet. “[R]eaching for the sustainability option and realising its promise has become a moral imperative. A challenge we dare not fail. It is the ultimate design challenge” (Michael Ben-Eli 2007).

But the commitment of these ‘creatives’ to more noble goals might be doubted:

... although they like to define themselves as a Class, they do not have noble class values – “The people of my parents’ age have been called “the greatest generation” for responding, often magnificently, in times of crisis and ferment. They answered the call. My generation and my class have been answering no call but our own. We haven’t taken seriously ... the obligations of leadership that come with our position as the norm-setting class. We must evolve from an amorphous group of self-directed, albeit high-achieving, individuals into a more cohesive, more responsible group.

Florida 2002: 317.

Environmental imperatives may eventually direct design’s genius away from production for ‘planned obsolescence’ and frequent fashion seasons, with concepts such as ‘renewable energy’, ‘closed-loop



production', 'green chemistry', 'zero waste', being more commonly linked with 'equity', 'sustainability', and 'local economies'. (Perez 2010).

The environmental limits may result in a gradual but radical transformation of consumption patterns. The change in the proportion of needs satisfied with intangibles rather than with products may intensify, but especially a trend towards maximum quality and durability of physical products, minimising energy consumption, maximising modularity for refurbishing and recycling, preferring the 'healthy' alternatives in food and leisure.

(Perez, 2010: 23).

A proactive response to environmental imperatives requires a different kind of leadership, one that can manage the complexity of the terrain, and guide the creative response that is essential. Beyond error-correction (single-loop learning), and reflection (double-loop learning), triple loop learning is needed, which calls for "...a 'collective mindfulness', a 'generative dialogue' ... enabling the system to see itself" – an unthreatened, listening approach from leadership (Muller 2014b).

Old leadership styles – from Taylor's scientific management, to Senge's living organism model (Capra 2002: 101-105), to the Trait approach, the Behavioural approach, the Situational approach, the Transformational approach (Woodward and Funk 2010: 301,304) - can be contrasted with new approaches such as the Inspiring Leader (Manolis et al 2008: 880), the Visionary Leader ((Capra 2002: 108-109), the Servant Leader (The Hill Consulting Group u/d), and the Artist-Leader (Woodward and Funk 2010).

These leaders are listeners, communicators, persuaders, conceptualisers; they search for 'a new story' rather than pursuing old ways; they are aware of their role as stewards, acting with empathy and foresight; committed to the growth of people and communities. The Artist-Leader, in particular, "...taps into internal, intuitive, aesthetic and interpretive skills – i.e. that which is 'concerned with beauty or the appreciation of beauty' - ... which leads to the constant creation of meaning or new narratives, to replace old outdated narratives ... the leader is in effect creating an artwork in the workplace" (Naidoo 2011, Woodward & Funk 2010: 301, 304).

*In the series 'Chasing Shadows' by Sally McKay - capturing the rhythm, energy and split second movement of dance – a fitting metaphor for the kind of perception needed by artist-leaders.*  
[www.secondfloor.co.uk](http://www.secondfloor.co.uk)



But many designers are not in leadership positions. They respond to the requests of their clients, who are driven by market and political forces. Spatial designers in South African government offices, in particular, have to comply to Monitoring and Evaluation management methods in an attempt to control complexity, rather than having creative freedom, which could be accompanied by ‘creative destruction’ and chaos (Muller 2012b). This illustration of the differences between Compliance and Creativity (Table 1) points to vastly different approaches to planning – on the one hand rational, expert-driven, according to a blueprint; on the other hand flexible, participative, imaginative and collaborative (Muller 2012b).

**Table 1. Compliance contrasted to Creativity.**

COMPLIANCE	CREATIVITY
Blueprints, rigid regulatory regimes, discipline, punishment	Freedom, flexibility, independence, autonomy, spontaneity, intuitive, experimentation
Top-down, expert driven	Bottom-up, participative
Status quo	Change, transformation, innovation
Closure, order	Openness and change, disorder, chaos and diversity
Left brain – logical, sequential, analytical, objective	Right brain – intuitive, emotional, synthesizing, subjective
Reality	Fantasy, imagination
Detail-orientated, linear-thinking	Big picture, holistic thinking, strategic
Rational planning	Critical pragmatic planning; collaborative, communicative planning

*Muller 2012b, sourced from Innes (1998); Gundry, Kickul & Prather (1994); Konnikova (2012); Mindfulnet, 2012).*

A further aspect of a design culture and design maturity within a country or city is the degree of shared ‘space’, vision, and integration – or lack of it.

Among the different professions responsible for the built environment there is a great degree of disjointedness. Transport and civil engineers view their work in terms of grid-like service provision; geographers and environmentalists, who regard themselves as urban planners, do not have 3-D creative skills; and architects and landscape architects, who regard themselves as true urban designers and concerned with space enhancement, lack the specialised knowledge and expertise of the other professions. They are differently skilled, with different vantage points; yet rarely are they involved in joint projects, and there is little debate among them, whether questioning or agreeing. (Dewar and Louw 2012).

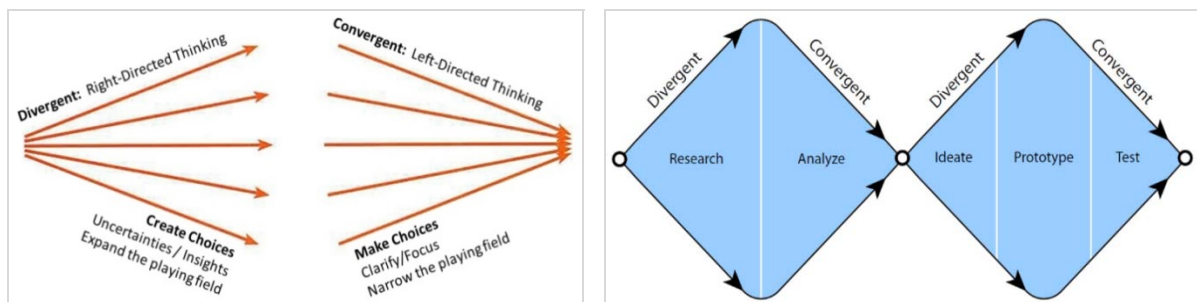
All are subject to outdated regulations and practices, yet none are campaigning for change. Their university curricula has been crowded, silo-ed, with no real attention being paid to the current problems of urbanization and the urbanization of poverty; nor to the examination of ecological

issues and pressures. The greatest drawback is a 'lack of shared ethical starting points' (Dewar and Louw 2012).

If this is true for the professions concerned with the urban form, the same is true between those professions and all the other design specialities. Urban planners, industrial, graphic or interior designers, rarely sit round the same project-table.

## 2.5 Design Thinking

A design thinking approach to projects offers an alternative. Design thinking is not a further category of design, but is a current popular tool in problem-solving. It is inherently a participatory, consultative, and transdisciplinary process (Brown u/d). The problem-statement needs to be defined, and re-examined. It is an iterative process of divergent and convergent brainstorming to problem-solve, which goes through stages of ideation, prototyping, testing, and application (Figure 5) (Brown, u/d).



**Figure 5.** Two illustrations of Divergent-Convergent Thinking; also showing the iterative progression from research and analysis, to ideation, prototyping and testing (philasocialinnovations.org; Perez 2014).

Design thinking has benefits and shortcomings. It offers an entirely creative thinking process:

Design thinking is very different from traditional judgment thinking. For judgment thinking, the desired output is truth or apparent truth. For design thinking, the output is value. For logical thinking, certainty is essential. For design thinking, possibility is essential. Logical thinking likes to work with facts. Design thinking has to work with perception.

De Bono, 2000: 222.

However, previous Design Thinking advocate Bruce Nussbaum questions the success of design thinking on its own (Fast Code u/d), pointing to its limitations in immensely complex situations. Other writers suggest that the methodologies and tools of Complexity and Systems Thinking should be the next addition and application to the process, adding to a designer's problem-solving skills (Huang & Anderson 2011; Muller 2012b).

Sloterdijk, as cited by Latour (2008), addresses the need for complex thinking and visualisation quite profoundly, in dealing with matters of ethical concern:

We know how to draw, to simulate, to materialize, to zoom in and out on objects; we know how to make them move in 3-D space, to have them sail through the computerized virtual *res extensa*, to mark them with a great number of data points, etc. Yet we are perfectly aware that the space in which those objects seem to move so effortlessly is the most utopian (or rather atopic) of spaces. Why can the powerful visual vocabulary that has been devised in the past by generations of artists, engineers, designers, philosophers, artisans and activists for matters of fact, not be devised... for matters of concern?

Sloterdijk as cited by Latour 2008.

## 2.6 Design and Ethics

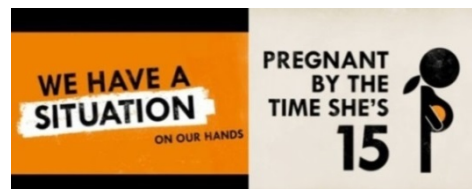
As previously said, the design activity is about problem-solving. Paradoxically, the problem with problem-solving is the definition of the problem.

It took about 50 years before someone defined the problem of opening canned food as: *Is there another way to open a can than with a bayonet or a rock?*

*Canned food in the Napoleonic and other early wars were hacked open by bayonet or rocks, late 1700s. Lever-type can opener designed in 1855 by Robert Yeates.*  
[https://en.wikipedia.org/wiki/Can\\_opener#First.2C\\_lever-type\\_can\\_openers](https://en.wikipedia.org/wiki/Can_opener#First.2C_lever-type_can_openers)



A promotional video circulated by The Girl Effect Project and supported by the Nike Foundation, has proposed this solution: to prevent a girl-child in Africa from falling pregnant before she is 15 and having to abandon her education, the problem has narrowly been defined as her



[www.girleffect.org](http://www.girleffect.org)

Age, with the suggested solution being a medical intervention at age 12 - which would still leave her open to child-marriage and rape, and quick expulsion on proving to be 'infertile'. But the problem could be phrased very differently: *How can the value of education-for-all be promoted in a paternalistic, female-devaluing culture?* And the solution might be very different.

It is well recorded, how, in many countries and under various historical circumstances, people groups have been defined as 'the problem' – being either too numerous, too successful, too primitive, too entrenched on the land, or just too 'present'. And disastrously effective solutions were designed and executed – of which the Apartheid system in South Africa is but one example.

Problem-setting in a design sense has profoundly ethical implications – whether it results in object-, message-, space-, experience-, or system-making. The motivations of those posing the problem come into question; while the impact of the ‘solutions’ are felt on people and planet alike.

Design, therefore, is not neutral.

In the process of designing, significant ethical<sup>4</sup> considerations may arise, which may either be deliberately ignored or manipulated, and could have social, environmental or economic repercussions. “Design is not a neutral tool; it is a planning activity whose aims and procedures are dictated by commercial and political interests” (Thackera 1988). Examples of these are:

**Design in the service of ethnic cleansing and conquering territory.** It is interesting to note that Adolf Hitler was a meticulous brand developer. One of the rarer finds in antique bookshops today would be the legendary *Organisationsbuch der NSDAP*, published in 1936, and the brand handbook of the Nazi Party. Rod Judkins, who stumbled across this book in a London second-hand bookshop, marvels at how “... beautiful design has the power to seduce...” (Judkins 2014). An elegant, professional design ethic was meticulously maintained in every aspect of portrayal of the German Reich.



*Imperialist power and victory was the overwhelming theme in this design for the German Pavilion at the 1937 International Exhibition in Paris. www.allposters.com. Woman in Uniform – illustration from the Organisationsbuch. www.od43.com*

**Design and Propaganda.** Propaganda, used mainly for political ends, is murky terrain. Whether in war or elections, the opponent must be portrayed as sinister - to say the least - while the proponent must appear honourable and honest. It is a battle for the mind, and propaganda’s persuasion targets the deepest emotions, fears, attitudes and beliefs.

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<sup>4</sup> The branch of philosophy that deals with morality. *Ethics* is concerned with distinguishing between good and evil in the world, between right and wrong human actions, and between virtuous and non-virtuous characteristics of people. *Dictionary.com*



Whatever the motive, whatever the desired outcome, propaganda is painstakingly and imaginatively produced by talented graphic designers and artists.

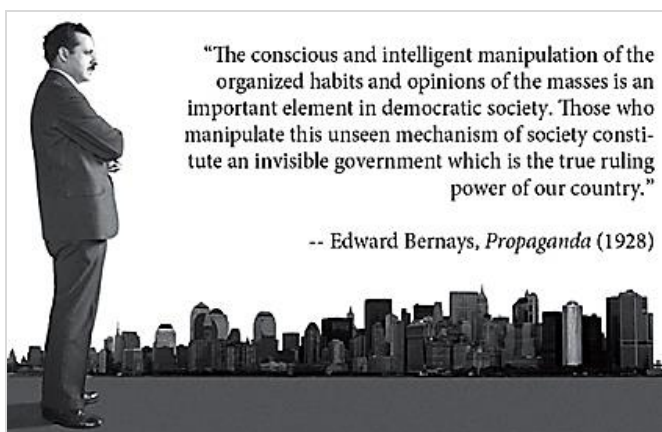
*Propaganda poster used in the UK and USA during World War II – to keep citizens informed and motivated.*  
[www.toptenz.net](http://www.toptenz.net) | [www.teacherweb.com](http://www.teacherweb.com)



**Design in the service of Consumerism.** From the 1930s the industries of public relations, advertising and marketing developed - all sophisticated expressions of Communications Design.

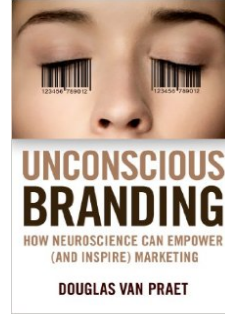
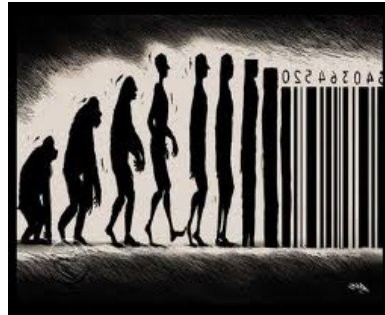
The BBC documentary, *Century of the Self*, exposes “the untold history of controlling the masses through the manipulation of unconscious desires” (Curtis 2005). The origins of advertising, public relations, marketing, and ultimately Consumerism, are traced to Edward Bernays, nephew of Sigmund Freud, who applied his uncle’s psycho-analytical theories to the ‘mass consumer’, as an answer to mass production. Called ‘The Father of Public Relations’, Bernays’ ideas, expounded on in his 1928 book, *Propaganda*, were applied in post-World War II America, as efforts intensified to persuade US citizens to spend their way out of the economic slump.

*One of Bernays’ most successful campaigns was to persuade women to smoke in public, and to make that an aspirational social practice.*  
[www.thesituationist.wordpress.com](http://www.thesituationist.wordpress.com) | [www.madamepickwickartblog.com](http://www.madamepickwickartblog.com)



In appealing to the individual expression of the Self, and offering it endless choice in consumer goods, the illusion of self-determination was created, an extension of Democracy. At the same time, Democracy has seemingly become inextricably linked to Capitalism (Curtis 2005, Terreblanche 2012). Multiple credit cards, a financial market crash, and many hundreds of thousands of disrupted lives later, Americans, and indeed the whole of the market-driven world, need to question just how free

they really are. In this process, communications design (and the other categories of design) has been an accomplice. It is a chilling reality that citizens – in both the Global North and South – are viewed primarily as Consumers, to be influenced and persuaded by subliminal marketing.



'Branded' Baby  
[www.mixingreality.com](http://www.mixingreality.com)

Human 'development' – from  
ape to shopper  
[www.boliviawater.wordpress.com](http://www.boliviawater.wordpress.com)

Book cover: *Unconscious  
Branding* by Douglas van Praet  
[www.unconsciousbranding.com](http://www.unconsciousbranding.com)

'Modern' Consumerism, or Consumerism expressed in Modernism, has been expressed as follows:

Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfactions, our ego satisfactions, in consumption... The greater the pressures upon the individual to conform to safe and accepted social standards, the more does he tend to express his aspirations and his individuality in terms of what he wears, drives, eats, his home, his car, his pattern of food serving, his hobbies. These commodities and services must be offered to the consumer with a special urgency...

Lebow 1955.

Planned obsolescence<sup>5</sup> and perceived obsolescence<sup>6</sup> were used as tools in Consumerism's armory.

This mind-set was confronted in *Design for the Real World* head-on:

There are professions more harmful than industrial design, but only a very few of them. And possibly only one profession is phonier. Advertising design, in persuading people to buy things they don't need, with money they don't have, in order to impress others who don't care, is probably the phoniest field in existence today. Industrial design, by concocting the tawdry idiocies hawked by advertisers, comes a close second. Never before in history have grown men sat down and seriously designed electric hairbrushes, rhinestone-covered file boxes, and mink carpeting for bathrooms, and then drawn up elaborate plans to make and sell these gadgets to millions of people. By ... creating whole new species of permanent garbage to clutter up the landscape, and by choosing materials and processes that pollute the air we breathe, designers have become a dangerous breed. And the skills needed in these activities are taught carefully to young people.

Papanek 1971.

"Design is not value-free in its relation with Modernism and its embracing of Capitalism - Design is one of the disciplines that uncritically absorbed the futurist ideology of Capitalism, including its ideal of displacing man with machine" (Berman 1982, quoted by Du Plessis 2014). And, Du Plessis (2014)

<sup>5</sup> objects designed to break and be discarded, while yet managing to retain consumer confidence;

<sup>6</sup> objects which are visibly out of fashion, therefore it is publicly obvious that one has not contributed to the 'silver bullet' of Consumption - a thoroughly unpatriotic withholding (Lebow 1955).

adds: “Art and Design, in the end, is not an idyllic field of knowledge but is an empirical system that functions within an economic and socio-political environment”.

This illustration of **100 Kettles** certainly speaks of creativity, the freedom to design, the exciting tension between form, material, functionality and art, the freedom of individual choice, the democratisation of design.

It also reflects the creation of brand and designer icons, even elitist and indulgent design, and “a world drowning in objects” (Sudjic 2008d), with resultant ecological implications.



[www.malindesign.wordpress.com](http://www.malindesign.wordpress.com).



*The fallout of Consumerism and advanced technology.*

*Mountains of Landfill*  
[www.dailymail.co.uk](http://www.dailymail.co.uk)



*Plastic recycling sites*  
[mavasola.wordpress.com](http://mavasola.wordpress.com)



*Computer waste*  
[www.greenpeace.org](http://www.greenpeace.org)

Table 2 reflects levels of inequality, between the expenditure on luxury items in the Global North, to basic needs in the Global South. US\$843 billion spent on luxury items compare to US\$40 billion required for basic services for poor countries. The USA budget of US\$900 billion on military operations is compared to their US\$51.25 billion budget for peacekeeping and aid (Held 2004). Internationally this is an unsustainable situation, and even more so when this kind of inequality is present in one locus, such as a city.



**Table 2. Luxury spending in the US and EU, compared to spend on basic needs in poor countries.**

<b>US citizens per annum – late 1990s</b>		<b>Most vital needs of the poor</b>	
cosmetics	\$ 8 billion	basic education	\$ 6 billion
confectionery	\$ 27 billion	water and sanitation	\$ 9 billion
alcohol	\$ 70 billion	reproductive health for women	\$12 billion
cars	\$560 billion	Basic health and nutrition	\$13 billion
<i>Sub-total</i>	<i>\$665 billion</i>	<b>Needed to change the well-being of the world's poorest – p/annum</b>	<b>\$40 billion</b>
<b>European Union citizens per annum – late 1990s</b>			
ice-cream	\$ 11 billion		
cigarettes and alcohol	\$150 billion	Removal of OECD agricultural subsidies – redirected to the poor	\$300 billion
<i>Sub-total</i>	<i>\$161 billion</i>		
<b>EU and US citizens together per annum</b>		A 0.5% shift in the allocation of global GDP	\$300 billion
pet food	\$ 17 billion		
<b>Total</b>	<b>\$843 billion</b>		
		<b>UN budget - peacekeeping</b>	\$1.25 billion
<b>US military budget</b>	\$900 billion	<b>US Aid budget</b>	\$50 billion

(Held 2004)

## Design and Power

The socio-political impact of design should not be underestimated. “Design drives the world” in areas of influence, from political, to technological, to cultural, to commercial. Design is not a neutral tool but embraces commercial, political and social interests in its function as propagator of Modernism; fuels new technologies and is an intimate partner of science research; and assists in the creation of products that meet social needs (greed?) and promote cultural identities (Du Plessis 2014). “In an age of mass production when everything must be planned and designed, design has become the most powerful tool with which man shapes his environments (and, by extension, society and himself). This demands high social and moral responsibility from the designer (Papanek 1971).

Design deals in the realm of image and imagination, creating identity and illusion, with enormous effect. In the theatre of the world, where the balances of power are played out between governments, corporate business, and civil society (not forgetting other nexus of power such as trade unions, NGOs, religious factions, crime syndicates, and terrorist organisations) – Design is engaged to various ends. The 1997 film *Wag the Dog*, portrayed an American president boosting his falling popularity ratings by creating a civil war in Armenia – on Photoshop. Brave American troops are flown in to rescue hapless citizens – against a sky-blue infinity curve - bomb explosions and devastation to be filled into the background later...

Design shapes our cultural values and loyalties. With a slogan an ordinary T-shirt can be transformed into a Designer T-shirt. With a barrage of illustrations, the only logical form a woman could be is ridiculously tall and thin.

*This is a Designer T-Shirt. | Fashion illustrations.*  
[www.coolmaterial.com](http://www.coolmaterial.com) | [www.andmelisa.blogspot.com](http://www.andmelisa.blogspot.com)



A designer with an Ego can promote a doubtfully-efficient object to iconic fame. Philippe Starck's 'Juicy Salif' citrus squeezer doesn't separate out the pips.

*Philippe Starck – 'the most self-publicised man in the world'*  
 (BBC Series, *The Genius of Design*, 2010).  
 His 'Juicy Salif' citrus juice squeezer, designed for Alessi.  
[www.dezeen.com](http://www.dezeen.com)



Figure 6 illustrates the design production-consumption model within its larger socio-political-economic context (Walker 1989). There is a flow of information between design and the context it is embedded in (which is riddled with complexity) – with the context influencing the outcomes of design, and design influencing the context. Design sends powerful, visual, spatial, cultural and commercial signals. Design influences our values, our concept of beauty and current acceptability, our status and value within society and within our habitat. Design dictates our responses and decisions.

This flow of information transference results in 'habitus', that is, "... the way society becomes deposited in persons in the form of lasting dispositions, or trained capacities and structured propensities to think, feel and act in determinant ways, which then guide them (Bourdieu 1984, 2004, cited by Du Plessis 2014).

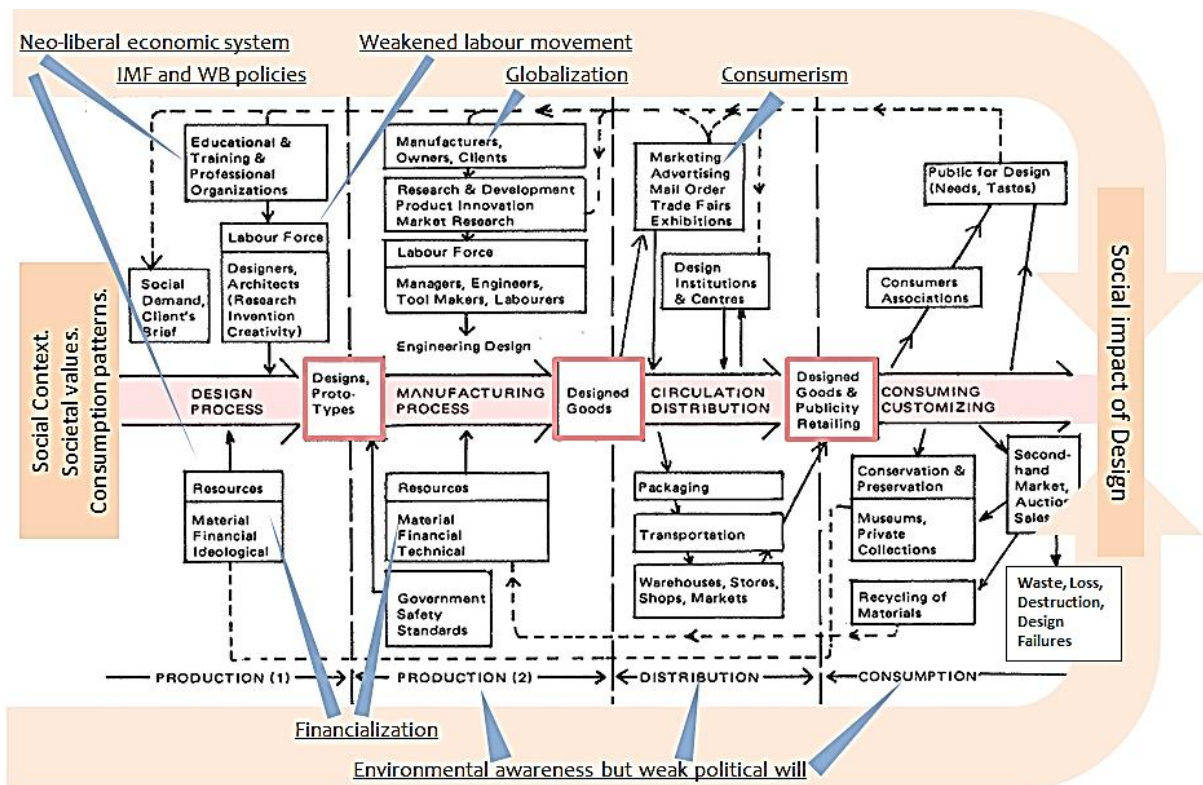


Figure 6. The Design Production-Consumption model. Walker 1989: 70.

The author's additions: The overarching context - considerations of the economic system, the environment, globalisation, transnational policies, financialisation, and Consumerism.

## 2.7 Technological Revolutions, Socio-metabolic Transitions, and Design Movements

In a pursuit to understand the links between design and the historic, political-economic and social contexts within which it operates, the historic developments and contributions of design movements will be juxta-positioned against technological revolutions, industrial revolutions, and socio-metabolic transitions. The writings of Perez (2007), Fischer-Kowalski ((2011), Fuad-Luke (2009), Brown (2014), and Swilling (2013) among others, have been referenced.

While Perez identifies how new technological breakthroughs manifest in new industries and new infrastructure, Fuad-Luke evaluates the various design movements through the lens of sustainability from the 1850s, in terms of economic, social, ecological and institutional results – and not all favourable. This reveals the motivation behind and outcomes of each movement. An additional overlay to this matrix is the population growth and explosion.

As a satellite country to the Colonial power of Britain - the birthplace of our current understanding of Design – South Africa and Cape Town were not isolated from these major design influences. In tracking the legacy of the movements, we see how they affected the reality that planners and designers now have to face.

Design since the first industrial revolution has been portrayed in an array of artistic expressions, or movements, each based on a particular ideological premise. These movements can be correlated to the five significant technological revolutions in Figure 7 (Perez 2007); as each breakthrough in technology made further explorations in construction and production possible. These design movements had distinct social, economic, ecological, institutional, and even political ramifications. It is useful to note that all five technological revolutions played out between Britain, the United States of America, and Europe, and eventually also Asia; but ultimately their impact was felt around the globe. A 6<sup>th</sup> technological revolution must now be added – as biotechnology and bioelectronics advances in research and application.

Perhaps coincidentally, as world population grew and then exploded, so did the proliferation of artistic expressions and movements. Where perhaps three major design movements accompanied the Industrial Revolution, three the Age of Steam, and three the Age of Steel, at least 17 movements can be traced during the Age of Oil – although a number could be grouped under Modernism and Post-Modernism – and a further at least 10 coincide with the Age of Information.

Advances in energy sources, the application of different materials to shape objects, progress in production methods, and the concurrent rush of thousands of rural folk to cities seeking work, have profoundly altered the nature of work, life, and society. These technological and societal forces found expression in artistic design movements which echoed the values and aspirations of the time; whether resisting change or working in tandem with progress.

‘Movements’ are characterised by inspirational leader(s), who have a following, with a shared ideology, goal and activities (Merriam-Webster website, The Free Dictionary). The outcomes of movements could be disruptive – even in a peaceable sense – but usually result in something shifting: views, values, practices, which can have political, social, cultural, economic, institutional, environmental and policy-making impact (Giugni 1998). Movements could also have unintended consequences (for example, Consumerism has led to an environmental crisis in terms of resource scarcity and waste landfills, while Modernism has led to social and spatial inequity and alienation).

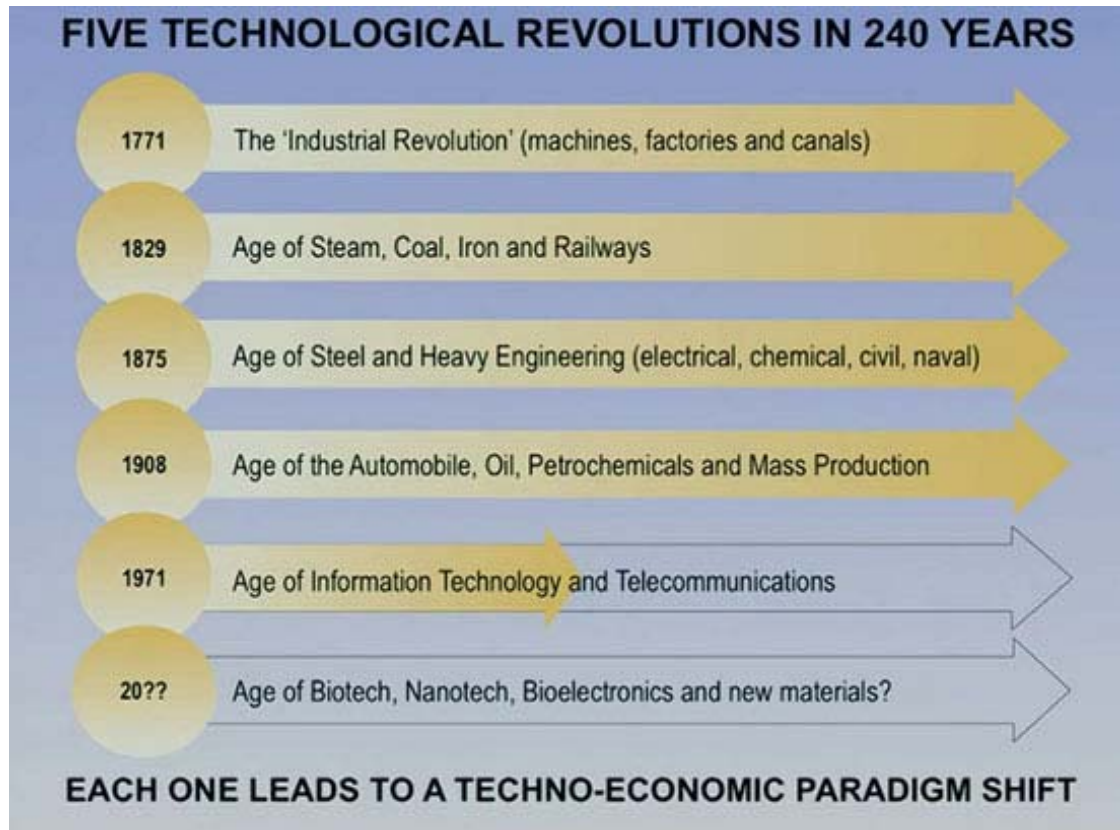


Figure 7. Five – or Six - Technological Revolutions in 240 years. Perez 2014.

Synergies can be found between the technological revolutions and Brown's discussion on the drivers of industrial revolutions. He identifies three such revolutions and maintains that in each there are three distinct drivers, namely energy, communication, and finance, as illustrated in Table 3 (Brown 2014). (Intense design activity would occur in each of these domains).

However, at the recent World Economic Forum in Davos, a 4<sup>th</sup> industrial revolution - that of robotics and artificial intelligence - was high on the agenda, with the threat of enormous job losses, and therefore needs to be included in the discussion (Smith 2016).

**Table 3. Drivers of Industrial Revolutions**

Industrial Revolution	Corresponds to -	Characterised by -	Energy	Communication	Finance
<b>FIRST Industrial Revolution</b> 1770-1830, England	[1 <sup>st</sup> and 2 <sup>nd</sup> Technological Revolutions]	Mechanisation	coal, steam power	canals, railways, mass printing/ education	London stock market
<b>SECOND Industrial Revolution</b> 1870-1920, Germany/ USA	[3 <sup>rd</sup> and 4 <sup>th</sup> Technological Revolutions]	Mass-production, mass labour forces, centralised business operations, hierarchical political and economic power	oil, electricity	cars, highways, telegraph, telephone, aircraft	Limited liability corporation
<b>THIRD Industrial Revolution</b> 1990's – present, Global	[5 <sup>th</sup> Technological Revolution]	Democratisation of manufacturing, www, PCs, big-data processing, 3D additive printing; social networks, collaborative behaviour, distributed economies	Democratisation of 'green' energy production - solar, hydro, wind, geo-thermal, self-produced	Democratisation of communications and marketing - Internet	Democratisation of finance - Internet 'banks', crowdfunding
<b>FOURTH Industrial Revolution</b> 21 <sup>st</sup> C, Global	[6 <sup>th</sup> Technological Revolution]	Robotics, artificial intelligence – could replace human labour	Green energy	Seamless connectivity, Mobile Internet, Radio Frequency ID	digital capitalism

Brown 2014; Smith 2016.

To fully set the scene, it is also necessary to refer to the writings of Fischer-Kowalski, exploring the concept of socio-metabolic transitions (Table 4), defined as the “socio-metabolic flows of materials and energy through different configurations of coupled natural and social systems” (Swilling 2013). As new material and energy resources become available, or the existing stock becomes scarce, a transition to the next socio-metabolic regime is created or forced. It is interesting to track global population growth alongside this analysis.

**Table 4. Socio-metabolic Transitions**

Timeframes	Socio-Metabolic Period/Transition	Resources	Population
13000 years ago	Hunter-Gatherers	soils, seeds, land were added	Increase from half a billion (1650) to 1 billion (1804) – 154 years
250 years ago	Industrial Era	fossil fuels, metals, minerals added	Increase from 1 billion (1804) to 7 billion (2011) – 207 years
Present period	Demand for sustainability	scarcity of non-renewable materials and fossil fuels	Estimated to reach 9.6 billion by 2050 (39 years)

Swilling 2013; Fischer-Kowalski 2011; Worldometers.

## A Comparison of revolutions, movements and transitions

In this comparison of the parallel developments between design movements, technological and industrial revolutions, and socio-metabolic transitions, particular emphasis is placed on the role and influence of the key thinkers, philosophers, and designers during these periods. Did their thinking set, follow or compromise with the trend? In addition it must be noted that, with regard to Perez'



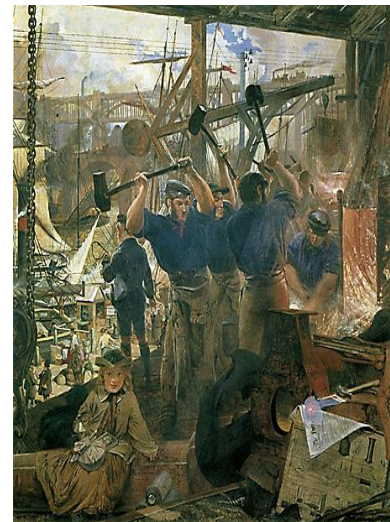
technological revolutions, only the characteristics are taken into account; the installation, collapse of the bubble, and deployment of each revolution will not be discussed.

### First Technological Revolution

The First Technological Revolution or Industrial Revolution, starting in Britain from 1771, was characterised by new and improved sources of energy (water and steam power), new materials (iron), making methods, tools, and objects (Perez 2007). The most profound designed technology that accompanied this period, and had indeed been around for over three centuries, was the printing press, which brought the written word closer to Everyman. The design style for interiors varied from the beautiful simplicity of the Shakers in the US, to the overblown Idealistic decorativeness of the Biedermeier Age in Germany.

### Second Technological Revolution

This was followed by the Second Technological Revolution – the Age of Steam and Railways from 1829, which added railway and metal ships to transport modes, and introduced rolling stock production in factories. These two periods saw the start of the 1<sup>st</sup> Wave of Urbanisation, and a profound shift in the status of work, man-as-maker, man-as-designer, social life, habitat, lifestyles, and the democratisation of objects and luxury. But cataclysmic shifts in societal order (from rural to urban, from land-tillers to machine-minders, machines taking over the creative role of man, and man rendered as repetitive and mindless as a machine) would take its toll in human misery. Factories belched forth polluting smoke into cities and the countryside. Workers lived and worked in squalid, inhuman spaces, with concurrent social and health problems.



*Iron and Coal, by William Bell Scott, 1855.*

The ARTS AND CRAFT MOVEMENT (led by William Morris, 1850-1914) responded to this wave of innovation and trauma, by waging war on mechanised, badly-designed mass production,

*Have nothing in your house that you do not know to be useful, or believe to be beautiful.*

**1870s - William Morris**

promoting a return to handcrafted, beautiful objects, the dignity of the designer-maker, and 'truth to materials'. Ironically, Morris' beautifully designed and handmade carpets, furniture and upholstery could only be afforded by the rich; while providing an income to crafters, it did not touch the quality of life of the working class. The AESTHETIC MOVEMENT (led by Christopher Dresser, 1870-1900, and

considered by some to be the first Father of Industrial Design) approached these challenges differently: he employed his prolific design skills to harness the new materials and mass-production making-methods, to simplify shapes into aesthetically pleasing objects, so that domestic appliances, furniture and carpets, for example, became affordable to the working class, thus vastly improving their quality of life (Sudjic 2008, Fuad-Luke 2009). These influential movements were echoed again in Europe during the next technological shift.

**Table 5. FIRST Technological Revolution. From 1771. Start of the Industrial Revolution. Britain.**

**New or redefined technologies for industries:** Mechanised cotton industry / Wrought iron / Machinery.

**New or redefined technologies for infrastructure:** Canals and waterways / Turnpike roads / Water power (highly improved water wheels) (Peres 2007).

Dates	Design Movement	Activism for – (Fuad-Luke 2009)	Sustainable elements
1440	<b>Printing</b>	Gutenberg printing press Mass production of books	<b>Social:</b> Education for every person
<b>1650 World Population 5 000 000</b>			
1730 -	<b>Pattern Making</b>	Josiah Wedgwood   Sheraton   Chippendale (task specialisation)	<b>Technological:</b> Perfectionism in specialisation
1750 – 1850 America	<b>Shakers</b>	Beauty arises from practicality	<b>Cultural:</b> A language of simplicity and minimalism
1815 – 1850 Germany	<b>Biedermeier age</b>	Reactionary idealism - a 'nature' age without population explosion, pollution, poverty and homelessness	-
<b>1804 World Population 1 billion (154 years)</b>			

**Table 6. SECOND Technological Revolution. From 1829 - Age of Steam and Railways - Britain and spreading to Continent and USA.**

**New or redefined technologies for industries:** Steam engines and machinery (made of iron; fuelled by coal) / Iron and coal mining (now playing a central role in growth) / Railway construction / Rolling stock production / Steam power for many industries (including textiles)

**New or redefined technologies for infrastructure:** Railways (Use of steam engine) / Universal postal service / Telegraph (mainly nationally along railway lines) / Great ports, great depots and worldwide sailing ships / City gas (Perez 2007).

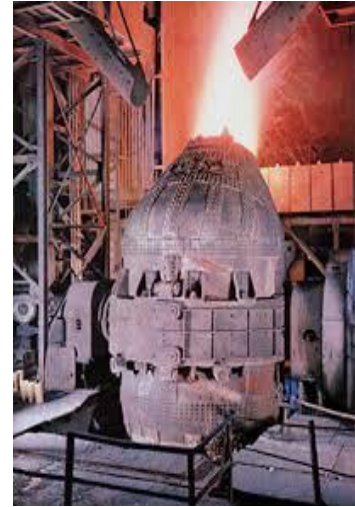
Dates	Design Movement	Activism for – (Fuad-Luke 2009)	Sustainable elements (Fuad-Luke 2009)
1853-1870	<b>Beaux-Arts</b>	Replacing inner city housing in Paris with imposing civic buildings, avenues, and urban art.	<b>Social:</b> create order, easier provision of services – at the cost of thousands being displaced
1850 - 1914	<b>British Arts and Crafts</b>	Opposed industrial mass production; promoted handcrafted simplicity, utility, beauty.	<b>Ecological:</b> anti-industrial pollution <b>Social:</b> better working conditions in factories <b>Economic:</b> better-offs benefitted
1870-1900	<b>Aesthetic Movement</b>	New materials, simplified shapes, mass production, pre-fabrication.	<b>Social:</b> Democratisation of domestic appliances



### Third Technological Revolution

The Third Technological Revolution, having spread to the United States of America and the European Continent, heralded the Age of Steel, Electricity and Heavy Engineering (civil, chemical, electrical, and naval). It brought with it cheap Bessemer steel, lighter steel ships, electrical equipment and civil engineering industries, as well as copper cabling, canned and bottled foods, and paper and packaging industries. There were great advances in transport: worldwide shipping, railways, bridges and tunnels; electrification of cities for homes and factories; and advances in communication through telegraph and telephones (Perez 2007). The artistic response again ranged itself on either side of technological progress.

*Bessemer steel production. Image: Wikipedia.*



Between 1895 and 1935 a philosophical and aesthetic tug-of-war existed between the design movements of ART NOUVEAU (1895-1910), and the WIENER WERKSTATTE (led by Joseph Hoffmann in Austria, 1903-1920) and the DEUTSCHE WERKBUND (led by Peter Behrens in Germany, 1907-1935). Art Nouveau rejected the poor quality of industrial production, embracing organic, natural and romantic forms, and revitalising the ceramics and glassware tradition. The latter two movements espoused minimalist, austere purity, strongly emphasising functional efficiency, to provide the working class with inexpensive, well-designed, standardised furniture and household objects, thereby laying a sound foundation for 'modern' industrial design and production. Even within these movements and time-frames, some designers were more avant-garde than others, such as Otto Wagner, who experimented boldly in furniture and buildings with new materials and making-methods in artistic expression - to which his Postal Savings Bank in Vienna still bears testimony (Beyerle 2008, Fuad-Luke 2009).

*Design is not about decorating functional forms - it is about creating forms that accord with the character of the object and that show new technologies to advantage.*

**Early 1900s - Peter Behrens**

### Thought leaders:



*Morris | Dresser | Hoffmann | Wagner | Gropius | Images: Wikipedia.*

*Arts and Crafts Movement | Aesthetic Movement | Wiener Werkstatte | Vienna avant garde | Bauhaus*

### Examples of the design movements:



Arts and Crafts Movement | Aesthetic Movement | Art Nouveau | Wiener Werkstatte | Deutsche Werkbund  
Images: Wikipedia.

**Table 7. THIRD Technological Revolution. From 1875 - Age of Steel, Electricity and Heavy Engineering** (civil, chemical, electrical and naval) - USA and Germany overtaking Britain - First Globalisation.

**New or redefined technologies for industries:** Cheap steel (especially Bessemer) / Full development of steam engine for steel ships / Heavy chemistry and civil engineering / Electrical equipment industry / Copper and cables / Canned and bottled food / Paper and packaging

**New or redefined technologies for infrastructure:** Worldwide shipping in rapid steel steamships (use of Suez Canal) / Worldwide railways (use of cheap steel rails and bolts in standard sizes) / Great bridges and tunnels / Worldwide Telegraph / Telephone (mainly nationally) / Electrical networks (for illumination and industrial use) (Perez 2007).

Dates	Design Movement	Activism for – (Fuad-Luke 2009)	Sustainable elements (Fuad-Luke 2009)
1895 - 1910	<b>Art Nouveau</b>	Rejected poor quality industrial production; stylised organic natural or geometric forms, first international style	<b>Economic:</b> new life to ceramics, glassware, furniture, architecture
1903 – 1920s	<b>Vienna Workshop to Vienna Modern</b>	Less décor and ornamentation; pared-down, objective designs, functional styling	<b>Institutional:</b> helped emerging institutions towards 'modern' industrial design and production
1907 – 1935 1945 - present	<b>Deutsche Werkbund</b>	Modern industrial design through more formal approach to function; standardised furniture and household objects	<b>Economic:</b> inexpensive objects for working class <b>Social:</b> improved living conditions, improved working conditions in factories

### Fourth Technological Revolution

The Fourth Technological Revolution, or the Age of Oil, Automobiles, Petro-chemicals and Mass-Production from 1908, had as dramatic an influence on the world as the Industrial Revolution. Cheap oil and mass-produced automobiles provided a great deal more mobility to a far larger portion of citizenry. Electric home appliances provided a never-before-experienced degree of liberty, both in time and toil. Analogue telecommunications, radio and television brought world events into your living-room, and knowledge was no longer the enclave of the elite (Perez 2007). But it also needs to be remembered that between this technological revolution and the next, fell the two most severe wars the world had ever experienced – World War I and World War II.



Oil refinery. Image: Wikipedia.

After WW I the next two prominent design movements emerged – Art Deco and the Bauhaus. Art Nouveau flowed easily into ART DECO (1920-1939), a luxurious, exotic, glamorous, decorative aesthetic, emphasising ornamentation from exotic sources; while the Werkstatte and Werksbund birthed the hugely influential BAUHAUS Movement (led by Walter Gropius, Adolf Loos and others, 1919-1933); it too honored ‘truth to materials’, pure unornamented form, and functionalism. The Bauhaus introduced a new design education system, bringing together students from many creative disciplines - craft, fine art, architecture – an early expression of transdisciplinary learning. The Bauhaus style later became one of the most influential inspirations to modernist architecture, art, design, design education, and typography (Sudjic 2008b, Stassen et al u/d, Fuad-Luke 2009).

*Not only is ornament produced by criminals, but also a crime is committed through the fact that ornament inflicts serious injury on people's health, on the national budget and hence on cultural evolution.*

**1908 - Adolf Loos: Ornament and Crime.**

## The age of Modernism

During and after the two world wars - and with the appropriate technology and energy sources to hand - the New World on both sides of the Atlantic surged towards MODERNISM (1930-1960+). Modernism symbolised a break with the past, with its stringent, binding mores, with conflict, suffering and hardship, and epitomised commitment to the Future and the New. Among many other luminary names, some architects stand out as prime promoters of Modernism.

### Thought leaders in Modernism:



Sullivan | Lloyd-Wright | Le Corbusier | Mies van der Rohe | The Eames' | Images: Wikipedia

Early 20<sup>th</sup> Century American architect, Louis Sullivan's (1856-1924) famous dictum '*form ever follows function*' dictated the urban form he created, and was adopted by those he mentored, such as Frank Lloyd Wright (1867-1959), the 'Father of Urban Sprawl' and designer of the Broadacre City (Aoki 1993). Unadorned, grid-like, skeletal building-method architecture proclaimed the Modern, while the city pushed both upwards (due to lightweight steel reinforcements), and outwards (due to cheap

oil). ‘*Less is more*’, the adopted<sup>7</sup> mantra of Bauhaus architect Ludwig Mies van der Rohe (1886-1969), who relocated to Northern America ahead of the Nazi regime, further defined the minimalist, pared-down design of some Modernist expressions. In Europe Le Corbusier - Charles-Édouard Jeanneret-Gris - (1887-1965) led the modernist field, with his famous dictum ‘*the home is a machine*’ and his concept of The Radiant City, (Beyerle 2008, Sudjik 2008c, Aoki 1993). Jane Jacobs and other urban commentators subsequently challenged Le Corbusier’s planning approach as dehumanising, mechanistic, over-planned, and destructive to organic city formation (Wendt 2009).

However, Modernism also emerged in more pleasing forms and expressions – such as Streamlining, Organic Design (with a particular Scandinavian expression), Good Form, Bel Design and Utility Design – in general promoting fluid, anthropomorphic forms, utilising new materials (especially plastics), light-weight, and elegant and stylised lines. Design advances made during WW II were employed in peace-time production (Stassen et al u/d).

Charles Eames (1907–1978) and his wife Ray (1912–1988) were prominent architects and furniture, textile and corporate designers based in Los Angeles during this time, and “helped shape nearly every facet of American life for more than four decades” (www.MMoA). Design was not merely a tool to solve problems, and change one’s environment for the better; it was a tool to construct culture, shape life-styles, create aspirations. The Eames experimented and utilised molded plywood in their furniture (many of these designs are still in production), and standard industrial building material in their housing designs (illustrated here by their own home – the *Case Study House #8* – entered for a design competition, to meet the urgent housing need of returning war veterans (Smith 2008).



Ray and Charles Eames in their home, the epitome of Modernism and the American life-style – Case Study House #8. Image: Wikipedia.

<sup>7</sup> ""Less is more' is a phrase from the Robert Browning poem 'Andrea del Sarto, also called 'The Faultless Painter' published in 1855, and adopted by the architect Ludwig Mies van der Rohe as a precept for minimalist design in the 1960s". [https://en.wikipedia.org/wiki/Less\\_is\\_more](https://en.wikipedia.org/wiki/Less_is_more).



## Examples of the design movements:



Bauhaus | Art Deco | Streamlining | Organic Design | Good Design  
Images: Wikipedia.

**Table 8. FOURTH Technological Revolution : From 1908 - Age of Oil, Automobile, Petro-chemicals and Mass Production - USA and spreading to Europe**

**New or redefined technologies for industries:** Mass-produced automobiles / Cheap oil and oil fuels Petrochemicals (synthetics) / Internal combustion engine for transport, automobiles, tractors, airplanes, war tanks and electricity / Home electrical appliances / Radio and Television / Refrigerated and frozen foods.

**New or redefined technologies for infrastructure:** Networks of roads, highways, ports and airports / Networks of oil ducts / Universal electricity (industry and homes) / Worldwide analog telecommunications (telephone, telex and cablegram) wire and wireless / National broadcasting networks (Perez 2007).

Dates	Design Movement	Activism for – (Fuad-Luke 2009)	Sustainable elements (Fuad-Luke 2009)
1909 - 1917	<b>Futurism</b>	Adulation of technology, speed and abstract form, progress	<b>Social:</b> all future design movements allied to concept of technology for progress
1917 - 1935	<b>Constructivism</b>	Introduction of propaganda motifs – dynamic and modern - in mass production for 'new society'	<b>Economic:</b> Soviet manufacturers of mass-produced goods benefitted
1917 - 1931	<b>De Stijl</b>	Absolute abstraction in form, surface and colour; aesthetic purity in art and design	<b>Social:</b> influenced all future design movements
1919 - 1933	<b>Bauhaus</b>	A functional aesthetic; unornamented forms of the modern style; new educational structure, to provide artistic advice to industry	<b>Social:</b> design in the service of society, practical, affordable products and inexpensive housing for working class
1920 - 1939	<b>Art Deco</b>	Reaction to Functionalism of German Werkbund – luxurious ornamentation from exotic sources, deliberate stylistic elements of decorative value, applied by industry to 'sell a lifestyle', Hollywood glamour	<b>Economic:</b> industrial production of consumer 'style' <b>Social:</b> 'affordable luxury' – the idea of well-being by consumption <b>Institutional:</b> corporations realised the power of design to brand products and the company
1920 - 1980	<b>International Style</b>	An international language of form in architecture and design; universal style able to transcend national and cultural boundaries; clarity of design	<b>Economic:</b> transnational companies could create a unique style, i.e. brand
<b>1927 World Population 2 billion (123 years)</b>			
1930 - 1950	<b>Modernism - Streamlining</b>	Aerodynamic design, representing 'progress' to encourage mass consumption; function and technology discreetly hidden by streamlined, 'teardrop' and biomorphic forms	<b>Economic:</b> products designed for obsolescence, shortening the product life cycle, mass production, mass consumer spending their way out of the Great Depression
1930 – 1960 1990 - present	<b>Modernism - Organic Design</b>	Organic, fluid, anthropomorphic forms capturing the spirit of nature; reinterpreting special and form arrangements	<b>Ecological:</b> environment integrated into design considerations <b>Economic:</b> furniture sector benefitted <b>Social:</b> connect users with functional,

			ergonomic, intellectual and emotional dimensions of objects, often with use of natural materials, to enhance quality of life
1945 - 1958	<b>Modernism - Post War – Utility Design and Good Design</b>	Combination of Functionalism, Rationalism, light weighting and simplicity, endorsed by UK's Design Council 'Good Design' label, mark of quality	<b>Economic:</b> furniture sector benefited <b>Social:</b> affordable, durable, reliable design for the masses
1945 - 1958	<b>Modernism - Post-War: Good Form and Bel Design</b>	Combining progress in manufacturing technologies and materials (esp. plastics) with new functional aesthetics in mass production of electronic/ electrical goods, furniture, lighting	<b>Economic:</b> growth and differentiation of manufacturing industries in Europe <b>Social:</b> increased consumer choice
<b>1960 World Population 3 billion (33 years)</b>			
1958 - 1972	<b>Pop Design</b>	Counter-culture to post-war Functionalism, drawing on fusion of pop and commercial art, fashion, and experimental and exotic forms, often using plastics, gimmicky ethos	<b>Economic:</b> manufacturing and retailing industries benefited <b>Social:</b> mass production of cheap, poor quality products
1965 - 1976	<b>Design for Need</b>	Social, economic and ecological critique of design; early critique of globalisation; alternative technology, light-weighting, efficient resource use, universal design	<b>Economic:</b> suggested new models of manufacturing <b>Ecological:</b> use of local materials, localisation <b>Social:</b> refocus from 'form' to 'content'; improved quality of life for disadvantaged in society <b>Institutional:</b> institutional change was needed in design education, practice and policy
Started 1960s - present	<b>Post-Modernism (Post-modern Design)</b>	Modernism rejected (egoistic, elitist) in favour of a classless society with pluralistic tastes; take from any historical or contemporary source to create new hybrid forms; new electronics and ICT offered scope for new forms – speaking to a globalised world economy	<b>Economic/institutional:</b> triumph of Capitalism over the social ideology of the Modern Movement – leading to a surge in mass consumption and credit borrowing
1969 - present	<b>Post-Modernism - Ecological Design</b>	Critique of design that did not consider the ecology, or local cultural and social knowledge; early critique of Globalisation	<b>Ecological:</b> bio-regional considerations balanced with global impact <b>Social:</b> welfare and well-being of users
1970 – 1980?	<b>Post-Modernism - Alternative Design</b>	Social critique of design for Consumerism, by individual designers and groups, promoting recycling, appropriate technology and permaculture design	<b>Ecological:</b> recycling, redesign, alternative manufacturing methods
1968 - 1978	<b>Post-Modernism - Anti-Design (Memphis movement)</b>	Italian-led counterculture to 'Bel design' and its use as status symbol; revalidate individual creative expression; Surrealist-influenced shapes, abstracted, exaggerated	<b>Social:</b> question relationship between objects and human existence, radical philosophical, political and social consciousness, anti-consumerist, start of 'designer' label culture
1968 - 1978	<b>Post-Modernism - Radical Design Groups</b>	A more radical and experimental expression of Anti-Design; questioned the value of advanced technology, Rationalism, and Consumerism	<b>Institutional:</b> queried purpose of design in contemporary culture <b>Social:</b> staged 'happenings' and installations to bring spontaneity back into consumer-product relationships

### Examples of the design movements:

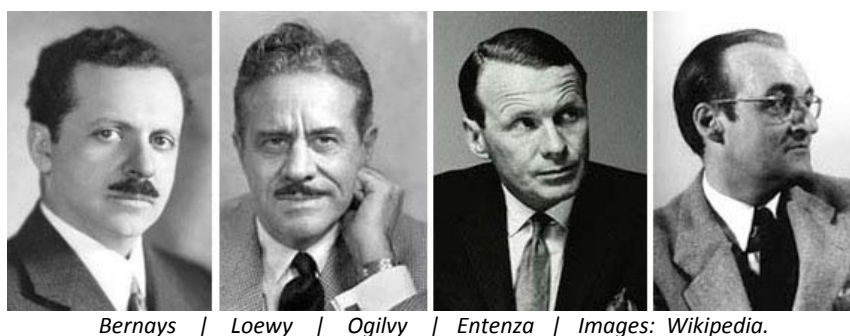


Modernism was certainly made possible by technological advances, but its strong ideological foundation enabled it to play a decisive role in the political-economic arena. In this it was powerfully supported by the communication design expressions used in public relations, marketing, advertising and publishing.

### The Age of Self and Consumerism

During the post-war years a strange ambivalence developed in design. On the one hand, affordable, functional designed goods became available to 'the masses' – a form of democratisation of design; on the other hand, objects were deliberately being 'designed for obsolescence', as the economic imperative of that period required the Western Allies to 'spend their way out' of the economic recession and their national postwar debt. What was 'good' and what was 'bad' design?

### Thought leaders in public relations, marketing, and advertising:



This was a most opportune moment for the professions of public relations, marketing, and advertising to flourish. It is useful to reference the debate between the thinking of philosophers Heidegger (1889 – 1976) and Habermas (1929 – ) regarding the value of symbolism versus scientific reasoning. Where Heidegger scorned the objectivity of science, embracing rather the primitive obscurity of symbols to reunite us with the earth, Habermas lauded the sound contribution of

scientific reasoning to add quality to life, while acknowledging that new and positive symbols could assist us in our present-day quest for reasonable answers (Gill 2002).

However, the 'Father of Public Relations' Edward Bernays (1891-1995), 'the Father of Industrial Design' Raymond Loewy (1893-1986), and one of the top four advertising legends, David Ogilvy (1911-1999), turned the use of symbolism not only into a fine science, but into a fine art. "If we understand the mechanism and

*Never leave well enough alone.*  
**1930s - Raymond Loewy**

*Your role is to sell - don't let anything distract you from the sole purpose of advertising.*  
**1930s - David Ogilvy**

motives of the group mind, is it not possible to control and regiment the masses according to our will without their knowing about it?" wrote Edward Bernays in his book *Propaganda*, calling the scientific technique of opinion-shaping the "engineering of consent" (Bernays 1928, Curtis 2005).

Raymond Loewy surpassed Dresser's status as prolific industrial designer. In 1896 the New York Times reported "One can hardly open a beer or a soft drink, fix breakfast, board a plane, buy gas, mail a letter or shop for an appliance without encountering a Loewy creation." He became the lead protagonist for 'streamlining' (the ultimate symbol of the future and progress), logo- and brand-creation, and 'production for obsolescence' ([www.RaymondLoewy.com](http://www.RaymondLoewy.com)). And David Ogilvy led a soon-thriving advertising industry in selling the fulfillment of dreams to consumers, symbolised in objects, pastimes, values, and lifestyles ([www.Ogilvy.com](http://www.Ogilvy.com) & Mather). They, with many others, collaborated brilliantly with economists and governments in the post-war transformation of citizens into Consumers.

Advertising and marketing needed the publishing sector. John Entenza (1905-1984), owner and editor of the magazine *Arts and Architecture* from 1940 to 1962, demonstrated the power of magazines and journals. He is regarded as a pivotal influence in spreading the growth of Modernism in America - particularly as a lifestyle - through the promotion of architecture, landscapes, furniture and product design, fine arts and crafts ([www.MichiganModern.com](http://www.MichiganModern.com)). However, he also displayed the social conscience spirit of post WW II, launching a Case Study House programme of affordable, modern, off-the-shelf-building-material homes for average American families (Smith 2008).

## Post-Modernism

Post-Modernism (1960/80-present), the reaction to Modernism, expressed itself in a general distrust of theories, a defiant re-use of the earlier artistic styles abandoned by Modernism, and as the language of a classless, globalised society. ANTI-DESIGN and RADICAL DESIGN (the famous Italian



Memphis movement) countered the mass-consumer approach by emphasising spontaneity, and individual creative expression, which would result in a 'new' relationship between product and user (Fuad-Luke 2009).

But with world population about to explode from 3 billion to 7 billion this mad individualistic extravagance soon became something only for the elite to enjoy. What was being offered to consumers as designer goods, was, to German industrial designer Dieter Rams (1932- ) "... an impenetrable confusion of forms, colours and noises" (www.Vitsoe). Intent on offering better design quality to the world, he developed his Ten Principles of Good Design. At the same time, Swedish furniture firm Ikea (since 1943), stepped in to service the masses with light, flat-pack, self-assemble, colourful, mix-and-match, affordable units, globally available, and ... modern.

#### Ten Principles of Good Design

- Good design is innovative
- Good design makes a product useful
- Good design is aesthetic
- Good design makes a product understandable
- Good design is unobtrusive
- Good design is honest
- Good design is long-lasting
- Good design is thorough down to the last detail
- Good design is environmentally-friendly
- Good design is as little design as possible

**Dieter Rams, 1970s**

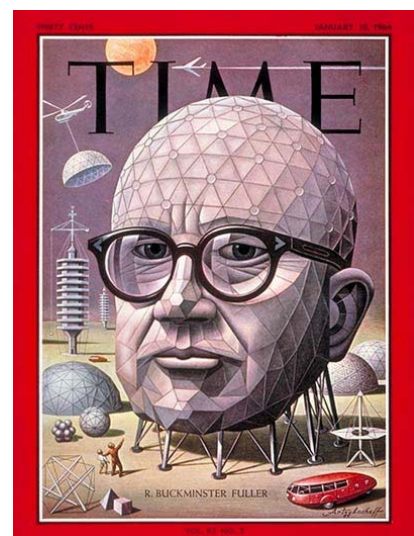
Although favouring a classless society, Post-Modernism signalled the start of the culture of 'designer' icons and labels, celebrated the triumph of Capitalism – and precipitated the present environmental crises of scarce resources (energy, fresh air, water, land, landfills, and production materials) (Fuad-Luke 2009).

### A shift towards responsibility

But a more profound and multi-layered thinker dominated the philosophical design sphere until his death in 1983: the American architect and author, R. Buckminster Fuller (1895-1983). A visionary, an inventor, a proponent of complexity, a systems theorist, a transdisciplinary, a designer, Fuller worked across many academic fields, combining design, architecture, engineering, geometry, and science, with a passion to make the world more habitable, and its resources more accessible to all of humanity. As early as the 1950s, and working as, what he called, a 'comprehensive anticipatory design scientist' – he identified global problems that needed dedicated attention; problems such as energy, transportation, housing, education, poverty, and

The best way to predict the future is to design it.

**1950s - Buckminster Fuller**



environmental damage. His thinking led to advanced scientific inventions, to be tested for everyday application. Time Magazine hailed him as “the greatest living genius of industrial-technical realisation in building” (Time 1964, [www.About Fuller](http://www.About Fuller)).

The German-British systems thinker and economist, Ernest Friedrich Schumacher (1911-1977), supported this socially-conscious application of Design, viewing Modernism as the *problematique* with which following generations needed to grapple. Modernism, intertwined with Capitalism and Consumerism, needed to be confronted by local, self-reliant economies, using technologies that promoted a ‘clean’ world (Schumacher 1973). His book, *Small is Beautiful*, still serves as inspiration against design and inventions being used in the service of ideologies.

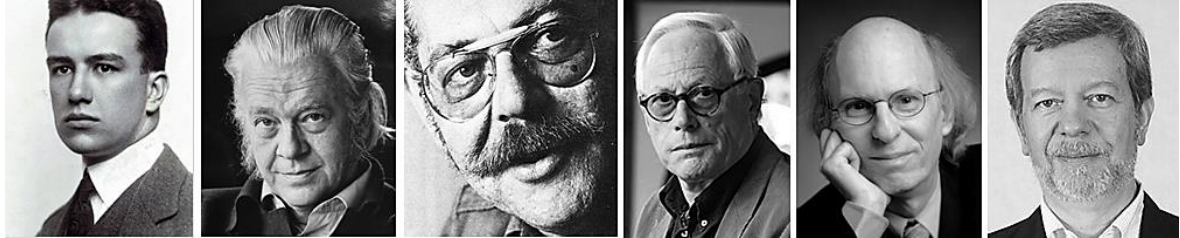
Other thinkers and writers emerged to challenge the motivation of design in relation to the planet and society; notably Victor Papanek (1927-1998). During the popularity of Pop Art and Op Art (1958-1972), his much-reprinted book, *Design for the Real World*, stripped the glamour from design, to question design’s responsibility to the ethical values of ecological accountability and societal welfare, as opposed to design supporting wanton Consumerism (Papanek 1971), thereby heralding the design movements Design for Need (1965-1976), and Ecological and Alternative Design (1969 to the present), both representing post-modernist responses. (See also Appendix A, the First Things First Manifesto).

DESIGN FOR NEED (1965-1976) and was a wake-up call to a reckless society, to a new responsible ethic towards the planet and society, promoting the use of local materials and products, and an improvement in the quality of life for the disadvantaged in society. This movement also called for institutional changes in urban design practice and policy, as well as design education. ECOLOGICAL DESIGN (1969 to the present) launched the promotion of recycling and cleaner methods of manufacture, the well-being of end users, and called for consideration of the global and bio-regional impact of production-consumption patterns.

Papanek’s challenge has been echoed by Margolin and Buchanan, who challenged the short-sighted and unethical goals of Consumerism and a waste society, advocating stronger consumer and designer activism in the cause of sustainability. Values, responsibilities, and ethical practice have permeated their writing (Margolin 2002). Buchanan also introduced Rittel’s 1960s concept of ‘wicked problems’ into the realm of design, illustrating how closely and how often problem-definition and problem-

solution in the design field corresponds to the properties of wicked problems, in terms of multiple stakeholders, ill-defined problems, uncertainty, and zero-space for trial and error (Buchanan 2009).

### Thought leaders in responsible, ethical, human-centered design:



Fuller | Schumacher | Papanek | Rams | Margolin | Buchanan | Images: Wikipedia.

It is particularly valuable to draw comparisons between Design in the first seventy years of the 20<sup>th</sup> Century (the 4th technological revolution) and Design in the latter thirty years of the 20<sup>th</sup> Century into the 21<sup>st</sup> Century (the 5<sup>th</sup> technological revolution).

### Fifth Technological Revolution

The Fifth Technological Revolution dawned, the Age of Information and Digital Communications (1971-present). An age of cheap, ever-to-hand, unprecedented volumes of information; instant communication, shrinking the globe through the world wide web and email (Perez 2007); democratised citizen access to, and control of, information through miniaturisation; programmed command and quality checks of production, storage, and distribution systems; a close-as-possible decoupling between abstract IT services and physical infrastructure (so far, data-farms are still unavoidable). Digital technology has brought about “the end of geography” (Godin 2015), regarding distinctive regional products, transport, financial transfers, information sharing, communication, and unique cultural expressions.



1940s. ‘The Whirlwind’. “This shining, rip roarin’ star of technology was based on thermionic tubes – valves basically ...” [www.anomalies-unlimited.com/Science/Comp.html](http://www.anomalies-unlimited.com/Science/Comp.html) | 2000s. Slim Apple. [www.apple.com](http://www.apple.com) | One of 8 Google Server Farms. [abbyherbert.wordpress.com](http://abbyherbert.wordpress.com).

This era calls for high demands in critical design thinking. The evidence of Consumerism-fallout is being recorded in terms of land, ocean and air pollution, as access to increased knowledge through digital channels make key planetary indicators more visible. Information is flowing into the public domain, creating an awareness of the fallout of the previous technological era since the 1900s – the forms of production, distribution and lifestyle. Changing climatic conditions are high on scientific agendas; huge swathes of populations are adrift across the globe, fleeing resource and ethnic wars, seeking food, water, protection, and a means of living; inexorable inequality and poverty is tearing the fabric of society in many countries; and the 2<sup>nd</sup> Wave of Urbanisation is rendering many cities hopelessly inadequate in providing basic services ahead of the demand.

Modernism is no longer a concept. A modernist takes for granted that there will always be air, space, water, heat, for the development of his or her 'global view'. What happened in the second half of the last century is that modernism disappeared in the exact measure where the life supports were made more explicit, one after the next. Ecological crisis, in such a view, are the slow and painful realisation that there is no 'outside' anymore. It means that none of the elements necessary to support life can be taken for granted.

Sloterdijk as cited by Latour 2008.

**Table 9. FIFTH Technological Revolution. From 1971 – Age of Information and Digital Communications - USA, spreading to Europe and Asia - 2nd Globalisation**

**New or redefined technologies for industries:** The information revolution: Cheap microelectronics / Computers, software / Telecommunications / Control instruments / Computer-aided biotechnology and new materials.

**New or redefined technologies for infrastructure:** World digital telecommunications (cable, fiber optics, radio and satellite) / Internet/ Electronic mail and other e-Services / Multiple source, flexible use, electricity networks / High-speed physical transport links (by land, air and water) / Global 'narrow-casting' networks (Perez 2007).

*Possibly moving into a Sustainable Era, a knowledge society based on services and systems, with technology applied in the service of humankind, 'green growth'*

<b>1975      World Population 4 billion (15 years)</b>			
<b>Dates</b>	<b>Design Movement</b>	<b>Activism for – (Fuad-Luke 2009)</b>	<b>Sustainable elements (Fuad-Luke 2009)</b>
1972 - 1985 1995 - present	<b>High-tech Design</b>	Celebration of the progress of science and technology; technology 'on view' in from electronic products to buildings, showing miniaturisation, computerisation, and high-tech materials	<b>Economic:</b> growth of electronic and eco-tech manufacturers <b>Ecological:</b> early explorations in renewable power for public and consumer markets
1980 - 1990?	<b>New Design</b>	Celebration of diverse metropolitan life, one-offs to small batch production to be independent from industry	Ecological: promotion of the use of recycled, reused and durable materials by some designers
1986 - present	<b>Design for the Environment   Eco-Design   Bio-mimicry</b>	Design awakens to its responsibilities and duty to care for the environment; use of recycled and recyclable materials; embed eco-efficient features, high-tech solutions, light-weighting	<b>Economic:</b> economic gains by being eco-efficient <b>Ecological:</b> reduction of impacts on the environment <b>Institutional:</b> shift to more responsible manufacturing and design practices
<b>1987</b>	<b>World Population 5 billion (12 years)</b>		
<b>1999</b>	<b>World Population 6 billion (12 years)</b>		

2000- present	<b>Transnational Design</b>	Issues of hegemony, cultural power, values	<b>Political-Economic:</b> Cultural, social and political aspects of globalisation/localisation
2000- present	<b>Universal   Design   Human-Centred Design</b>	An approach that encourages designs to be equally accessible to the largest possible number of people.	<b>Cultural, social, political:</b> Participation and democracy.
2000- present	<b>Co-Design   Inclusive Design</b>	"Everyone is a Designer"	<b>Cultural, social, political:</b> Participation and democracy.
<b>2011      World Population 7 billion (12 years)</b>			

*World population figures from <http://www.worldometers.info/world-population/>.*

The advent of the digital era 'invited' HI-TECH DESIGN (1972-present), with computerisation, miniaturisation, and high-tech materials being visibly celebrated. At the same time, and as the environmental and social fallout of high Consumerism, cheap oil, urban sprawl, and non-biodegradable plastics and other materials became evident, design awakened to its duty towards people and planet in the form of ECO-DESIGN and BIOMIMICRY (1980-present), HUMAN-CENTRED, UNIVERSAL, INCLUSIVE and CO-DESIGN (2000-present). 'Recycle' and 'reuse' became the mantras, a circular production to re-production loop was sought, and nature became humankind's teacher. Design for people, by people, reflected the new awareness of design in service to humankind, rather than dictating its course.

The term 'human-centred', of course, reflects the fact that design had been applied for very different reasons than to benefit humankind; ideological stances, political aims, personal ego- and reputation-building, and, interestingly, in the service of the latest technology. For, while Hi-Tech Design could be applied in services and systems towards a more human-centred world, it very often follows its own experimental route, where hi-tech is its sole aim.

Digitalisation, in the service of globalisation, has been a willing accomplice in customised mass-production, serving new markets in developing countries, thereby perpetuating the unabated production and distribution methods of the previous era. Digitalisation has made sophisticated global warehousing and distribution systems possible, as well as the barrier-free flow of investment and speculative funds.



### Examples of the design movements:



*Hi-Tech Design | Biomimicry | User-centred and Universal Design | Co-Design  
Images: Wikipedia and City of Cape Town.*

### Thought leaders in Sustainable Design, Design Activism, Design Thinking and Biomimicry:



*Manzini | Fuad-Luke | Thackera | Brown | Benyus | Images: Wikipedia.*

In the global design community a more recent generation of design philosophers are following in the tradition of Fuller and Schumacher. Concerns are raised regarding responsible production methods, sustainable design to further environmental and social quality and equality, policies for sustainable development, what constitutes resilience in a city or community, and the changing role of designers to involve citizens as participants (Manzini 2015). The Polycrisis calls for a 'design activist' role for designers, to bring synergy between the 'languages' of design and of sustainability (Fuad-Luke 2009). The ethical responsibility to humankind, beyond technical innovation, is being raised, with the loss of privacy and social relationships through wearable computing, social media, and connected appliances being questioned (Thackera 1998). Design Thinking as a tool to problem-solving is being promoted (a transdisciplinary, co-design approach to often wicked problems) (Brown u/d). And Biomimicry, (learning from nature and borrowing nature's blueprints to design circular, rather than linear, solutions for humankind's dilemmas), is being explored (Benyus u/d).

**Thought leaders about ‘creative’ citizens; thought leaders about complexity and ethics:**



The contribution of designers, as members of *The Creative Class*, to economic growth, city formation, and choice of habitat, has been recognized (Florida 2002), while the concept of the Creative City (and its creative citizens) is being promoted to answer the challenges of urbanisation, globalisation, refugees and asylum seekers, inequality, poverty, and global city competition (Landry 2008). Cities compete for the enviable status of being recognised as a design or innovation hub, where the city management has created an encouraging ‘space’ or environment for creativity.

The writings of Sloterdijk and Latour and the introduction of Actor Network Theory, in which both what is human and non-human are interactive actants, has added to the philosophical debate. There are huge expectations on design as a profession to provide answers to utterly complex problems, but “... four hundred years after the invention of perspective drawing, three hundred years after projective geometry, fifty years after the development of CAD computer screens, we are still utterly unable to draw together, to simulate, to materialize, to approximate, to fully model to scale, what a thing in all of its complexity, is” (Sloterdijk as cited by Latour 2008). The “mystery of unintended consequences” was never considered by determinist Modernism.

In our present predicament “... everything that has been designed during the four or five former industrial revolutions has to be redesigned”, and, with such a strong spotlight on the ethical dimension, “... it is as if materiality and morality were finally coalescing” (Latour 2008). In this next inevitable revolution, in which design has to play a pivotal role, what might be surprising is that –

... the new “revolutionary” energy would be taken from the set of attitudes that are hard to come by in revolutionary movements: modesty (it is never a process that begins from scratch: to design is always to *redesign*), care, precautions, skills, crafts, meanings, attention to details, careful conservations, redesign, artificiality, and ever shifting transitory fashions.

Latour 2008.

## The Shift from 20<sup>th</sup> Century design to 21<sup>st</sup> Century design

Manzini (2014) illustrates the shift from 20<sup>th</sup> Century Design (intensely narcissistic Consumerism) to the more socially- and environmentally-conscious design ethic of the 21<sup>st</sup> Century. On an axis of **what** was being designed, there is a shift from the design of *product* (tangible) to *services* and *systems* (intangible); and on the axis of **how** the design action was carried out, there is a shift from strict preoccupation with the *theoretical design process* to *co-design* with non-designers.

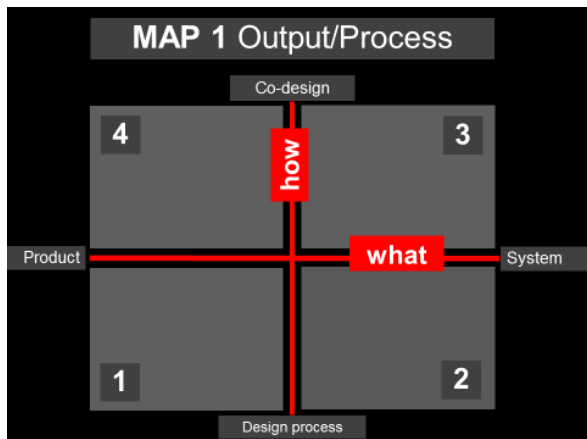


Figure 8. Design Output on an axis of Product-to-System, and Design Process-to-Co-design (Manzini 2014).

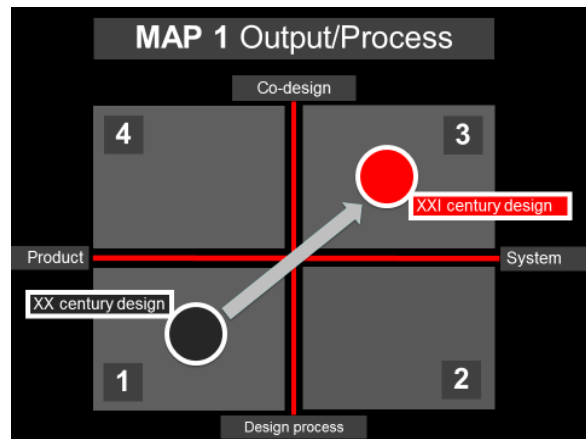


Figure 9. A shift from 20<sup>th</sup> Century design to 21<sup>st</sup> Century design (Manzini 2014).

There is a profound difference between the motivation to design that aligns with the 4<sup>th</sup> technological revolution, and the 5<sup>th</sup> technological revolution – between 20<sup>th</sup> Century design and 21<sup>st</sup> Century design. Easily accessible planetary information has brought about an awareness of exploding population figures, dire human conditions, mass social fallouts, food and water stress, and the loss of biodiversity – and this has created a shift in a self-indulgent humankind. However, there is no clear-cut end and beginning between the two – we are living with the expression, concerns and consequences of both.

## Sixth Technological Revolution

To understand Design's role in the Sixth Technological Revolution (biotechnology, bioelectronics) - through the 3<sup>rd</sup> and 4<sup>th</sup> industrial revolutions, (digitalised additive production, and (robotics and artificial intelligence respectively) - and the present socio-metabolic transition (from an abundance to a scarcity of non-renewable energy and mineral resources), it is necessary to bear in mind that in this time of acceleration, the world is caught within three technological revolutions at the same time.



“...the current global economic crisis simultaneously marks the end of the post-WWII long-term development cycle, the mid-point of the information age and potentially the start of a new era of sustainable development”

Swilling 2013.

While developing countries are still reaching for the ‘good life’ and mass-production and mass-consumption continues unabated to a world population that has spectacularly doubled in 50 years, earth’s monitors are applying the brakes to ‘business as usual’ requiring huge creativity in more democratic and ‘green’ production, distribution and consumption methods. At the same time, science and invention are forging into new territory with robotics and biotechnology. Design is crucial in all three periods.

*A student and instructor experiment with using the mind through a headset to control robots. People's Liberation Army (PLA) Information Engineering University, Zhengzhou, Henan province, China (www.MSM 2015).*



## 2.8 Concluding remarks

The action and process of Design is interlinked with ideologies, customs and cultures. Design is therefore not value-free or neutral, for behind Design are visible and invisible actors: the designers, philosophers, problem-solvers, solution-seekers; the end-users, beneficiaries, the affected ones.

As a problem-solving process, ethical considerations arise. For example: in what terms will the problem be formulated; who is formulating the problem (historically a top-down approach); who will be impacted by the solution; who will benefit from the solution; how will the design outcome influence our thinking, values and responses. Everything hinges on correctly formulating the problem. Neither does Design function as an independent discipline. There are intimate touch-points between Design and the surrounding context. The act of creativity, invention, and problem-solving, every actor and action, process and outcomes, derives motivation and direction from the prevailing ideological thinking, technological regime, or political-economic systems.

The various design movements, synchronised with the technological revolutions, demonstrate the historic swing of ideological approaches, and what the social, environmental, economic, and institutional outcomes have been. Some outcomes could be seen as beneficial to humankind and the planet, but others have had deleterious fallouts.

Examples of these are the outcomes linked to Colonialism, Modernism, Consumerism and Neoliberalism, with the various forms of Design being co-opted for political-economic purposes. Particularly the 4<sup>th</sup> technological revolution and the accompanying design movements have not resulted in sustainable outcomes. The availability of cheap oil and the ideologies of Modernism and Consumerism have substantially contributed to the present planetary ecological crisis.

As information increased regarding earth's sensitive barometers, using the digital capabilities of the 5<sup>th</sup> technological revolution, this resulted in a counter-movement from indulgent design, to human-centred and planet-conscious design movements. The scarcity of energy and critical mineral resources is simultaneously forcing the planet through the 3<sup>rd</sup> socio-metabolic transition, which will necessitate the re-design of 'everything', in which materiality and morality are more sustainably balanced. Experimentation with digital technology, biotechnology, bioelectronics, and artificial intelligence adds a further dimension to the ethics debate.

It is significant that all technological revolutions, and all design movements manifest in cities. In the next chapter the Evolution in the design of Cities, to their present manifold expressions, will be examined, as well as the contribution to history, progress, and the current state of the planet, by a number of cities that could claim to being 'design cities'.

In Chapter 4, as the 'State of the City' of Cape Town is examined, we will consider how technological revolutions and design movements have and are manifesting in the city.

# 3

## Design and Cities

### Introduction

As Design is inextricably linked to human activity and life, it is similarly inextricably linked to the development of cities. And as the design action was first unconscious, and then became deliberate, so the evolution and shaping of city space was first unconscious and then became deliberate. As we examine the evolution in the design of cities, we can also trace the development of Cape Town's urban form through this lens. In addition, cities are the 'space-holders' for the five, and now six technological revolutions, and all the design movements since the mid-18<sup>th</sup> Century.

### 3.1 Evolution in the design of cities

From as far back as 6 000 BC, cities originated as an outflow of humankind's move to specialise in different functions (Beall & Fox 2009). As agriculture (the planting of crops, and breeding of herds) became linked to the settler-existence, and surplus products became available, some members of the society were released to process and trade with those goods. Excess woven fabric, skins, grain, wine, and animals could be traded; and as new territories were explored, these commodities were joined by more exotic goods such as spices, perfumes, precious stones and metals, and humans from conquered territories. Cities therefore developed along TRADE ROUTES, and where RESOURCES were to be found (such as coal, iron, gold, water), to becoming places where PRODUCTION workshops were set up and COMMERCIAL practices developed. With the development of writing and mathematics, and the growing concentration of people, cities soon became host to various institutions of EDUCATION, where specialised knowledge and skills were taught and practiced, different individuals being acknowledged for their acumen in craft, war, philosophy or trade (Beall & Fox 2009).

Along with the mutual benefits of a concentration of people in a settlement (ready markets, strength against enemy attacks, a sharing of skills), various forms of city management and power structures developed to control civic, economic, commercial, political and religious life. Ancient cities show

evidence of city layout planning, roads, and even water and sewage. These cities could wield enormous military power over entire regions, an early manifestation of the CITY-STATE. Rome, for example, had developed advanced urban planning strategies, with grid city layout, food and water provision over long distances, and even traffic regulations – the legacy of which is still evident today across Europe, North Africa and the Middle-East (Beall & Fox 2009).

The separation of tasks and specialities resulted in differing levels of income, status, fortune, and social stratification. This socio-economic differentiation was the “... driving force behind socio-technical change” and cultural innovation, “that generated a canon of intellectual, architectural and artistic works that continue to inform contemporary social, political, scientific and aesthetic endeavours” (Beall & Fox 2009, 41).

### **Class, race and income – shaped by design**

The COLONIAL CITY since the 16<sup>th</sup> Century, took design cues from the Roman building pattern - with imposing administrative buildings lining the main thoroughfares, a grid city layout for the provision of services, the rich in well-positioned enclaves, and the poor and servile in poorly-serviced ghettos. A green belt area, justified for health and sanitary reasons, separated the locals from the wealthy homes (Hardy & Satterthwaite 1989:20 as cited by Beall and Fox 2009).

As the main aim for the colonial, usually coastal, city was to serve as a conduit for agricultural, mineral, cultural and human wealth resources back to the motherland, little attention was paid to the provision of caring services, or to equip the city or country for future economic and industrial development (Beall & Fox 2009). Spatial planning was therefore imposed upon city layout from the outset, as well as hugely unequal provision of infrastructure and services. The legacy of these policies haunts colonial cities to this day, as is evident in South Africa.

### **Industrial cities**

With the discovery of steam as a power source, and the advent of the Industrial Revolution in the 18<sup>th</sup> Century, humankind’s lifestyle, until then in tandem with the seasons, was forever disturbed. Production methods, transport, and communication changed, and the spread of knowledge escalated. Multitudes flocked to the city in search of labour during the 1<sup>st</sup> Wave of Urbanisation, shaping the INDUSTRIAL CITY, with MANUFACTURING as its economic anchors, followed by increasingly sophisticated systems of FINANCE (Beall & Fox 2009) – of which London is the prime example. But the rapid growth of factories and influx of workers into ill-prepared cities caused

intense squalor, radical health and social problems, gruelling working conditions and foul pollution of the air and rivers (Beall & Fox 2009).

These relatively small city settlements (between 200 000 and 600 000 inhabitants) were WALKING CITIES; bankers walked to their banks, factory workers lived near factories, the butcher lived above his butchery. Changing technology - the invention of the car and the street-car (tram) changed one's choice in living locality. A naturally beautiful environment became desirable, as an antidote to city grime, which linked to the value of land; and with availability of cheap oil and the car, the wealthy were soon living in prime locations. But living patterns were also shaped by the desire for ethnic and social cohesion, or a desire to be close to a vibrant inner-city cultural life (Aoki 1993).

### **From 'unconscious' to deliberate**

Gradually the task of planning the shape of a city became more deliberate, self-conscious and formalised.

The professional practice of urban planning was born in the mid 19<sup>th</sup> Century, firstly with the founding in New York City in 1857 of the American Institute of Architects (AIA), followed by the Royal Town Planning Institute in Britain in 1914 (Aoki 1993). Rapid urban growth required an organised approach to city layout, taking cognisance of where people lived and worked, how they travelled, and how the city administration could provide basic services. Order was achieved through neat, logical grid plans, which were often forcibly imposed upon a crazy, organic city layout (Sudjik 2008c); the most extreme example being Baron George-Eugene Haussmann's 'creative destruction' and radical redesign of Paris between 1853 and 1870, during what was known as the BEAUX-ARTS movement, to achieve Paris' imposing presentation of broad avenues, civic buildings, monumental urban art, and rigid grid layout, to enable the provision of services, but mostly, to create a city that would impress (Aoki 1993).

Other design responses to the harsh ugliness of the industrial city was the ARCADIAN MOVEMENT, promoted in the late 19<sup>th</sup> Century by Frederick Olmsted in America - based on William Morris' Arts and Craft Movement - and the GARDEN CITY, promoted by Ebenezer Howard in Britain, both reflecting a picturesque, natural and healthy habitat. This concept re-surfaced post-World War II, again as a reaction to the stark horror and deprivation experienced in those years of conflict (Aoki 1993).

The two world wars and the Great Depression engulfed the northern countries in severe economic, housing, and employment challenges. SOCIAL FUNCTIONALISM emerged as a response to urban poverty: entire towns were created to house company workers, for example the railroad town Pullman, built by George M. Pullman. Workers were provided for but owned no property, virtually tying them to that company for life (Aoki 1993), similar to South Africa's railway houses.

### **The New and the Modern**

The 3<sup>rd</sup> technological revolution of Steel, Electricity and Heavy Engineering, and the 4<sup>th</sup> technological revolution of Oil, the Automobile, Petrochemicals and Mass Production indelibly influenced city spatial planning. This accelerated the construction of high-rise buildings and skyscrapers, called for new road systems and highways (a very new invention), and introduced new production, communication and marketing systems. Huge, glass-fronted shopping centres became the way to entice the buying public. But American cities - in the 'land of promise' - were still being planned according to "strictly segregated ...economic, social, cultural, and racial lines" (Aoki 1993).

From the 1930s to the 1960s, the French architect, Le Corbusier, as well as the American architect, Frank Lloyd Wright, brought different forms of Modernism to bear on city planning, driven by the dream of Utopian societies. Le Corbusier's RADIANT CITY (groups of monolithic structures using new building technologies of steel girders, glass and elevators, set in garden surroundings), was intended as social housing and to free the city up from squalor and over-crowding. Where Le Corbusier planned upwards, Wright built outwards; his modernist BROADACRE CITY was anchored in cheap oil and much available space – of which modern Los Angeles is the closest expression. 'Cleansing' the inner city meant moving people out to suburban homes and large gardens, accessible by sleek highways (Aoki 1993). Le Corbusier's vision of urban Modernism was severely critiqued by Jane Jacobs and other writers, as inhuman, destructive to organic city formation, fragmentary, and socially alienating (Wendt 2009; Malik 2001).

The INTERNATIONAL STYLE of Henry Hitchcock and Phillip Johnson in the 1930s was Modernism expressed through stark cubic shapes and horizontal concrete bands, for both offices and homes, and soon became accepted as the "official style of the mid-century bureaucratic/corporate state" (Aoki 1993). Their approach became associated with 'high' architecture and discourse; 'low' architecture and discourse being relegated to property developers and building contractors. This caused a significant break in the profession of planning, and the profession of building – where the first is based on some ideological construct, the latter acts according to the rationale of practicality and

profit, resulting in two very different forces at play in the formation of urban space. Urban planners and designers are commissioned to create iconic buildings to 'signature' a city's skyline, while land speculators and developers pursue high-profit opportunities (Aoki 1993). Neither paid attention to the needs of the lower income groups. From the 1970s to the 1990s in American and many other global cities (such as South Africa under Apartheid), the poor were often forcibly removed from prime inner city land to the outskirts, far from economic opportunities, with a loss of homes, services, jobs and community (Aoki 1993).

### **Growth of nations, population, cities, urbanites, and slums**

The 20<sup>th</sup> and early 21<sup>st</sup> Century has been a time of explosive growth on many fronts. World population grew in just 51 years, from 3 billion in 1960 to 7 billion by 31 October 2011 (Worldometers). Over the past 60 years, after de-colonialisation and de-Sovietisation, the number of countries doubled, while the number of cities more than doubled (Khanna 2011). More cities grew into very large cities.

What has emerged from this cauldron of new political identities, new governance structures, new power relationships, and tumultuous changes in economic systems, is a massive move and migration of people to cities since the 1950s (the 2nd Wave of Urbanisation) (Swilling 2012, Satterthwaite 2007). With continued population growth, urban population is set to increase to 60% (close to 900 million) of total earth inhabitants by 2030 (UN 2006).

**1<sup>st</sup> Wave of Urbanisation** – mainly Europe and North America:  
1750 to 1950 – increase of 15 million to 423 million urbanites.  
**2<sup>nd</sup> Wave of Urbanisation** – mainly Developing Regions:  
1950 to 2030 – an increase to 3.9 billion urbanites.

Pieterse 2010.

In addition, the devastating fall-out of conflict, wars and persecution compound the numbers flocking to cities. The United Nations High Commissioner for Refugees (UNHCR) reported in June 2015 that displacement of peoples worldwide is at its highest level ever; just short of 60 million people (more than half of whom are children) have been driven from their homes, with a sharp increase over the past year, and the situation likely to worsen. Stateless people, in 75 countries, have been estimated at between 3.5 and 10 million (UNHRC u/d). The recent migration of refugees from North Africa and Syria to Europe has dramatically swelled these numbers. This places unprecedented demand on the resources of nations and cities in terms of food and health aid, land, water, disaster infrastructure, and available and suitable work.

The millions of people being drawn to cities create huge demands for housing (land and sand/cement), services (water, energy, food, sanitation, waste removal), transport, and add to the already enormous logistics of waste outputs, which the natural system cannot absorb. In these densely-populated societies enormously complex systems of delivery and through-flow are required and created (Swilling 2004: 224). A number of authors refer to urbanisation as a socio-economic-spatial-environmental crisis (Pieterse 2006, 2008; Roberts et al 2009; UN reports of 2006/7, 2009, 2010/11, 2011, 2011/12), which manifest as ‘wicked problems’, a concept coined by Rittel and Webber in 1973, for situations that seem to have no clear definition, no one right solution, are symptomatic of another problem, have no leniency for a trial-and-learning process, while the outcome of any intervention is critical (Rittel & Webber 1973).

While cities have attracted enormous investment in land, business and other buildings, infrastructure, and stock markets, they have also proved to be sites of enormously unequal development. The benefits seem to be reserved for only certain citizens, and, in fact, only certain ‘great cities’ (Hall 1966), between which enormous amounts of the world’s wealth flows (Khanna 2009; Kotkin 2014). Sassen pinpoints just 24 cities that “... dominate global network connectivity, airline traffic and immigration around the world”, in the radius of “... a few streets of high-rise buildings” (Sassen 2006, 2007).

“Slum, semi-slum, superslum... to this has come the evolution of cities”; this quote by Patrick Geddes introduces the acclaimed book, *Planet of Slums*. The generational legacy of poverty, privileges claimed by the urban wealthy, and the IMF’s structural adjustment programmes imposed upon developing countries are pinpointed as some of the chief causes of urban poverty (Davis 2006).

In SLUM CITIES, such as the high-density favela suburbs of Rio de Janeiro, Mumbai’s vast Dharavi slum, and Kibera in Nairobi, governability becomes a severe test of local administration. Here are large numbers of politically activated people, who cannot be wished away (Khanna 2009). To meet their needs for basic services, slum-dwellers have had to resort to enterprising forms of design, to appropriate power and fresh water (South Africa’s appropriation of electricity), and deal with issues of sanitation (Kibera’s flying toilets) (News24, 2015).

While drawn to cities with the illusory expectation of a better life, people soon become part of the fight for survival, and the right to the city (Harvey 2008; Gorgens 2008; Coggin & Pieterse 2011).



Over 75 percent of jobs fall within the informal sector in Sub-Saharan Africa (Pieterse 2010). Slum citizens are trapped with pitiful incomes, in cities wracked by corruption and crime, with poor infrastructure and access to basic services, education and connectivity (Pieterse 2010). “Only the slum remains as a fully franchised solution to the problem of warehousing the twenty-first century’s surplus humanity”; “the labour-power of a billion people has been expelled from the world system, and who can imagine any plausible scenario, under neoliberal auspices, that would reintegrate them as productive workers or mass consumers?” (Davis 2006).



*Favela, Rio de Janeiro. 8142.blogspot.com | Dharavi, Mumbai. www.100marks.in | Appropriating electricity. www.News24.*

A further aggravating cause of urban poverty has been ‘the myth of ‘filtering down’ in the housing market. It was believed that, if financial interests should build houses at the top end of the market (rather than provide social housing for the poor) the greater supply at the top end would filter down through the income-strata, eventually benefitting the lowest income groups. The reality has dispelled this myth, the profit motive manifesting in “... rampant abandonment, speculation, gentrification, displacement, and homelessness” (Aoki 1993).

The GENTRIFIED CITY is the result of a re-evaluation, since the 1970s, of previously unsightly, un-modern urban blight, imbuing these spaces with post-modern ‘ambiance’. Planners, architects, investors, and developers are marketing and renovating such re-valued spaces for “upscale young ‘baby boom’ buyers, eager to return to the same core city that many of their parents had fled a generation or two earlier” (Aoki 1993).

### **Centres of Power**

In spite of these frightening statistics, with an expected further \$53 trillion (€47 trillion; R707 trillion) to be invested in urban infrastructure in the coming two decades, cities are again assuming roles of rulership in world affairs, as in the Middle Ages. But today, instead of wealthy families such as the de Medicis (although wealthy families should not be ignored), powerful corporations provide the

impetus for city growth, such as communications technology companies Cisco and Siemens (Khanna 2007).

“There are certain great cities, in which a quite disproportionate part of the world’s most important business is conducted” (Hall 1966). These 58 WORLD CITIES, or GLOBAL HUBS are household names - London, New York, Paris, Singapore, Tokyo, Hong Kong, Dubai, Beijing, Sydney, Los Angeles, San Francisco, Toronto - and between them vast amounts of “... the world’s wealth and talent flows” (Khanna 2009; Kotkin 2014). Only 5 of these cities are located in the Southern Hemisphere (Sydney and Melbourne in Australia, Johannesburg in Africa, and São Paulo and Buenos Aires in South America) (Kotkin 2014).

A city such as Tokyo also rates as one of the 32 MEGA CITIES. With more than 20 million inhabitants, these cities are so large that many of their inhabitants are born and die within their enormous precincts. Mega cities include São Paulo, Lagos, Cairo, Istanbul, Jakarta, and Mumbai, and can apply the term Gross Metropolitan Product to their economies: “they are markets in their own right, particularly when it comes to the ‘bottom of the pyramid,’ which holds such enormous growth potential” (Khanna 2011).

Following on the tradition of port cities, railroad cities, and car cities, the AEROTROPOLIS presents another glimpse of the present-future. Airports are now surrounded by a complete economic infrastructure, as “... generative hubs of economic activity” to cities, in which “... customers across the globe may be more important than the ones next door” (Khanna, 2011).

Cities such as Cape Town, Dubai, Tripoli, Almaty, and Kuala Lumpur are seen as GATEWAY CITIES, providing access to other markets in their region. These cities compete fiercely to gain position in the ‘world city’ ranks, using urban markers such as ‘emerging innovative hubs’, the provision of knowledge and services, quality of lifestyle, and tourism as their draw-cards (Khanna 2011). The ‘Creative Class’, profiled as ‘no-collar’ professional-vocation workers, with a particular lifestyle, cultural tastes, and working style and ethic, are drawn to such cities for their enticing ambience and amenities, but could as easily move on (Florida 2002).

The concept of CREATIVE CITIES also holds the promise of providing the competitive global edge (Landry 2008), by tapping into the creativity of citizens to solve city problems through innovative design-thinking, encouraged by visionary city leadership. Projects which support a culture of urban

creativity are proposed. But it would seem that the ‘agents of change’ are the ‘Creative Class’ – who could be transient. One is not certain that all the citizens of the city are included in this vision.

### **Tech cities for the future**

The 21<sup>st</sup> Century has seen the birth of a number of ambitious city concepts, with deep-ranging implications for urban planning and design. Key among the amenities offered to citizens, is a hi-speed communication and networking infrastructure (Florida 2002). Aspiring to lure professional creatives and achieve competitive advantage, some cities have raced to ‘wire-up’ and provide the required information and communication technology (ICT), such as computer networks, e-commerce, internet services, satellite TVs and mobile and fixed phones, which have not only influenced their finance, commercial, urban, leisure and home environments, but have earned them the name of SMART CITIES (Graham 2002; Khanna 2011).

To maintain order, and by implication control, on a city-complex scale, the creative thinking and problem-solving skills inherent in ‘design’ (as a city-descriptor) are tapped into increasingly and deliberately: the almost invisible forms of service, systems, and interactive design, are applied to maintain connectivity, transportation, financial mobility, production, health, safety, economic performance, service provision. IBM builds its competitive edge by promoting the company’s ICT offering to serve diverse sectors such as Energy and Utilities, Economic Development, Rail, Communications, Education, Social Services, Public Safety, Traffic, Health Care, Retail, and Airports (IBM 2013).

It is significant that a number of trans-corporate giants - Shell, Keppel Corporation, IBM, Siemens and Phillips Lighting - were invited to make presentations at the 2013 World Cities Summit in Bilbao (World Cities Summit 2013). Their presence indicates the close dependency that is acknowledged between advanced communications technology, and the way cities and business, flows of traffic, goods, and services, and human movement within cities will be managed in the future. This is the birth of ALGORITHMIC CITIES.

Following smartly on the heels of Smart Cities, comes the futuristic and disquieting concept of SENTIENT CITIES - when “... computing leaves the desktop and spills out onto the sidewalks, streets, and public spaces of the city” (The Mobile City u/d), invading one’s anonymity, flaunting knowledge of your private identity, tastes and habits (for example as you walk past Starbucks, you are alerted to the presence and price of your favourite coffee mix). Urban public space will become the local village

gossip scene, gone digital. Digital space will be invaded by rabble crowds, agitating furiously with their fingers on buttons, for any particular cause. This presents huge “... implications for privacy, autonomy, trust and serendipity in this highly observant, ever-more efficient and over-coded city” (Shepard 2011).

In fast-growing populations or economies INSTANT CITIES are being constructed. These cities are being built from the ground up to house millions of workers in new industrial sites and businesses. Asia, in particular, has a number of projects in progress, such as Songdo in South Korea, Chongqing and Dongtan near Shanghai in China, Tianjing in Singapore, Lavasa near Mumbai in India, and Putrajaya and Cyberjaya in Malaysia, the latter custom-built to accommodate high-tech start-up industries (Khanna 2011).



*Songdo – greenfield.*  
*geography.wikispaces.com.*



*Chongqing, China’s most massive interior city at the base of the Three Gorges Dam.*  
*www.theaustralian.com.au.*



*Lavasa, a hill station outside of Mumbai, India - www.hok.com.*

Some of these new developments are being designed as ECO CITIES, in particular Dongtan, Tianjing (a 100% green-building, garden city, with a vibrant economy, and everything within walking distance), and Norman Foster’s design of Masdar in Abu Dhabi - “the world’s first carbon-neutral city ... iconic buildings with zero carbon, zero emission and zero waste” (Masdar u/d) from construction to maintenance, relying entirely on solar energy, compact, with no self-driven cars or hi-rise buildings. It is being developed together with GIS-technology firm, ESRI, and engineering firm, CH2M Hill, with trans-national corporations buying offices in the project (BBC News). These, of course, are not cities that are accessible to all, only to those who can afford it.



*A wind tower provides cool air to the street level of Masdar / brochure.*

There are other expressions of Instant Cities (with far fewer services) – TENT CITIES that are installed to house refugees and migrants from war and conflict; tent cities that desperately and organically spring up for economic refugees (for example in the USA after the 2008 stock market crash, which resulted in huge job and home losses). In contrast, there is the air-conditioned, fire-proof 100 000-

tent city of Mina, Saudi Arabia, which lies empty and awaits 3 million Hajj pilgrims to Mekka for 5 days a year.



*Syrian refugee centre on the Turkish border  
50 miles from Aleppo, Syria, 3 August 2012.  
[en.wikipedia.org](http://en.wikipedia.org)*



*Tent City, Florida, 2008.  
[Infogr.am/Comparison-of-the-Great-Depression](http://Infogr.am/Comparison-of-the-Great-Depression)*



*Mina, Saudi Arabia.  
[www.disclose.tv/news/](http://www.disclose.tv/news/)*

### **The Ordinary ... and the Maverick**

Hundreds of cities do not easily fall into the classifications or language of promotional branding and identity-building. ORDINARY CITIES are treated harshly by the Washington Consensus institutions, and then unjustly measured by growth parameters which hide the real cost of growth to societies and the planet (Robinson 2002). Ordinary cities across the globe have their own assets and strengths, and need to capitalise on these, rather than chasing a brand or world ranking. Cities, as centres of cross-cultural networks, foster creativity (Amin & Graham 1997:417). New histories are written, new practices and trends are shaped, new 'sense' is made of life. Cities are also the breeding ground for political activism (Beall & Fox 2009). Ordinary cities and ordinary people are quite capable of this, given the freedom to do so.

However, developers are greedy for land and profits. The fantasy development plans for African cities, for example, are in sharp contrast to the everyday lived experience in those cities. This results in a battle for land; and to prevent the urban poor being further removed from the economic hub, a livelihood, and services, could "...mobilise shack dwellers, unemployed youth, local informal and formal business and the NGO sector at a citywide scale, to effectively counter these interventions" (Watson 2014).

In many ways, Africa is a 'post'-continent – post-Colonial, post-modernist, post-planning, post-despotic (though some linger on). African cities have lingering legacies, with burgeoning populations, ungovernable challenges, conflicting politics and ideologies – and a stubborn will to survive. Africa's ROGUE CITIES are a case in point. There is an energy to live and find creative expression despite the harshest conditions. Somehow, education, commerce, industry, and the arts continue to survive and progress, defying structural adjustments by the IMF and World Bank. But to do so, unorthodox paths are followed, which often baffle description. It is no wonder that in this maze, corruption is rife.



These cities are again being organically shaped, from the grassroots up, as it was in the beginning (Pieterse & AbdouMaliq 2013).

### 3.2 Designing urban sustainability

Since the Brundtland Report put forward its definition of sustainability in 1987, placing value on the rights of present and future generations to sustainable earth resources, (*Our Common Future* 1987, 43) other writers have contributed concepts such as ecological regeneration (Gasson 2002), responsible political governance and the empowerment of civil society (Allen 2002, adapted by Pieterse (Ed) 2010, 13), ecological justice (Sachs, 2002: 19), and very clear pronouncements on what constitutes an unsustainable society (Satterthwaite 1997).

The escalating awareness and seriousness of global warming and other environmental crises, together with the ongoing economic recession, exponential population growth, rapid urbanisation, the management of this large urban explosion falling upon the municipalities and urban planners of developing countries, the urgency of a more equitable distribution of the world's resources and opportunities (Gorgens u/d, Harvey 1973, Sassen 2010, Swilling & Annecke 2012, Swilling 2004, UN-HABITAT 2010/11), and the increasing prevalence of slums and urban poverty, have focussed attention on SUSTAINABLE CITIES.

Various cities aspire to this accolade and have put policies and measures in place to achieve this status. Vancouver, Portland, Mikkeli, Manila, Berlin, Leicester, Helsinki, Bogota, and Curitiba all provide examples of cities implementing small steps to address critical issues and move their cities towards sustainability (City of Vancouver; City of Portland; Landry 2008).



Curitiba bus system. [www.sutmunido.com](http://www.sutmunido.com)

Companies such as Siemens SA have shaped their websites (and their services and market appeal) around the concept of a sustainable city, offering African cities a Green City Index to measure their performance, rating them according to the criteria of land use, air quality, energy and CO<sup>2</sup> efficiency, environmental governance, financing, green buildings, health care, public safety, transport networks, water, sanitation, and waste (Siemens 2013).

Related city concepts are JUST CITIES, and INCLUSIVE CITIES, concerned about social and spatial justice, and equal development opportunities, expressed in the urban form through integrated and mixed land use, social housing, transport planning, and densification (Muller 2012); RESILIENT CITIES, that are able to ‘bounce back’ from changing climate patterns, natural disasters, and again incorporate the full complement of their city residents (California Academy for Sciences 2013); and BIOPHILIC CITIES, which strive to integrate nature back into urban design and planning, and to protect and foster deep connections and daily contact with the natural world (Biophilic Cities 2013). This concept is promoted by urban planner, Tim Beatley, who is currently working on such programmes with Singapore, San Francisco, Oslo, Phoenix, Vitoria Gasteiz, Portland, and Brisbane.

In the same spirit, Kenneth Frampton and William Curtis proposed their concepts of CRITICAL REGIONALISM and AUTHENTIC REGIONALISM respectively in the 1980s. These theories advocate the use of local heritage, local building material and construction methods, everyday life patterns, and symbiotic relationships with the natural environment, to achieve and maintain authentic regional identity and a sense of place (Orozco 2011).

The concept of LIVEABLE CITIES focusses on designing or re-designing Cities for People. The point of departure is that cityscapes are viewed from a helicopter perspective; but this does not make them human-friendly. While considering the huge changes that are taking place in demographics and lifestyles, liveable cities should be lively, safe, sustainable and healthy – an environment (even for the largest city) that can be experienced “through the five human senses and experienced at the speed of walking rather than at the speed of riding in a car or bus or train” (Gehl 2010).

*The Death and Life of Great American Cities* (Jacobs 1961), a sharp critique against modernist planning, was the inspiration for NEW URBANISM and SMART GROWTH. Decrying the modernist planning methodology of land-zoning and outer-city sprawl development which caused increased segregation by race and income, the Congress for the New Urbanism, which boasts a sizable following, advocates the reclaiming of inner cities, neighbourhoods, and public spaces, and assigning equal value to the natural environment as to city space. They lobby for restructured public policy to the end that:

Neighborhoods should be diverse in use and population, communities should be designed for the pedestrian and transit as well as the car, cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions, and urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

Congress for the New Urbanism 2000.



However New Urbanism can also be guilty of over-control – the setting of the *The Truman Show* in the (over-designed) New Urbanist town of Seaside, Florida, represents a metaphor for the top-down, expert-driven and artificial nature of the concept, where free will and individual expression are not allowed, and which cannot be compared to the natural processes through which towns developed over time through the inputs of many role-players (Muller 2015).

Sustainability needs to be achieved in three spheres: Environmental, Social and Economic (Gilbert et al 1996), while also considering the additional dimensions of Sustainable Governance, and the application of Sustainable Science and Technology. Figure 10 reflects the three spheres, and the critical issues of Justice, Efficiencies and Ethics, as the three spheres overlap, to attain full sustainability:

- Environmental Sustainability is derived from the Brundtland definition, with considerations that non-renewable resources should be extracted at minimal levels; the use of renewable resources should not exceed the rate at which they are renewed or the environment's capacity to absorb the resultant waste; and the natural environment should be preserved to maintain ecological balance
- Social Sustainability refers to individual needs for nutrition, shelter, health, education and cultural expression; social capital being strengthened and left as a legacy for future generations; and the collective society's ability to work towards common goals
- Economic Sustainability signifies economic development and growth which is financially feasible, while ensuring both social and environmental sustainability.

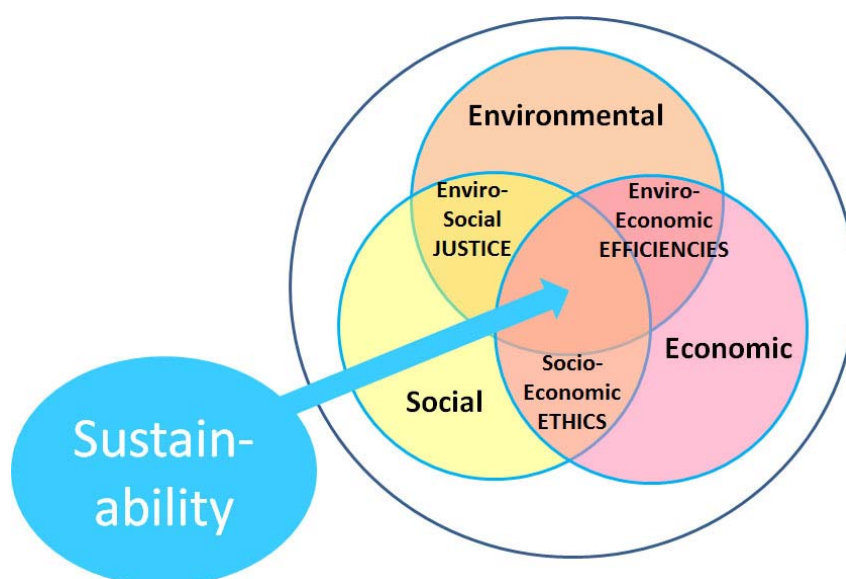


Figure 10. The Three Spheres of Sustainability.. <http://comphacker.org/comp/engl338/2013/04/13/hendl-on-sustainability/>- Redrawn by Naidoo 2015).

Economists and geographers have developed tools of measurement, such as the Gini-coefficient to measure income inequality between the rich and the poor, and ecological footprinting to depict the fair or over-use of one's share of earth's resources - water, land, clean air, energy (Wackernagel and Rees 1995). Cities can be rated according to these monitors.

Figure 11 reflects the Gini Coefficient for selected African cities - with South African cities showing the largest and most severe income inequality between the rich and the poor. Other African cities are not wealthier, only more equal (UN-HABITAT 2008).

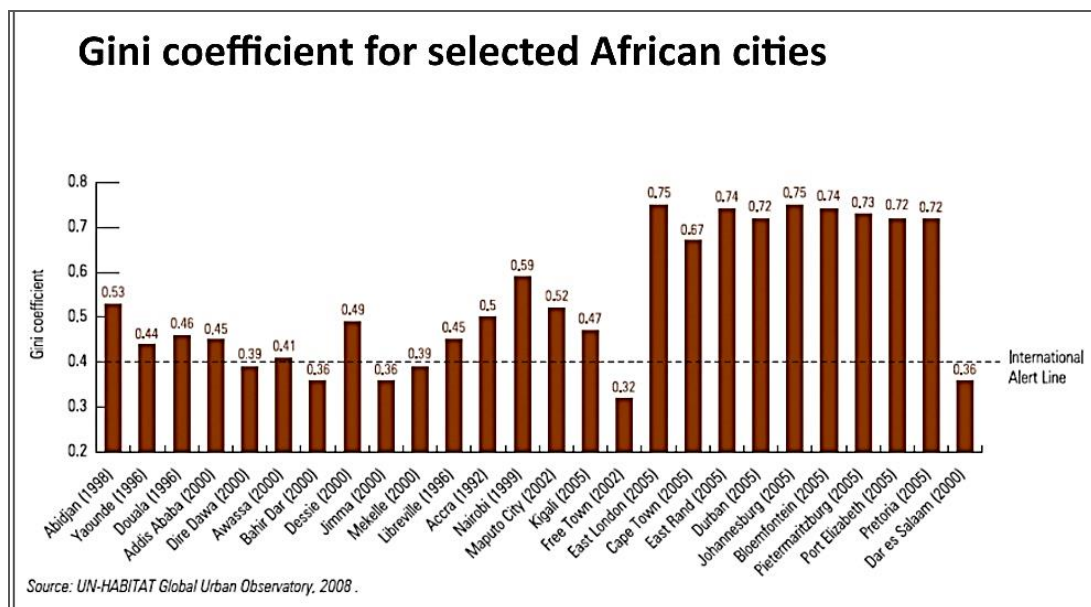


Figure 11. Gini Coefficient for selected African cities. UN-HABITAT Global Urban Observatory 2008.

Between the wealthier and poorer citizens sharply uneven access to the assets and services of the city unfolds. Figure 12 depicts Wackernagel and Rees' depiction of shrinking available per capital land-use. At the same time wealthy and middle-class citizens consume more than their per capita share of available natural resources. "In particular, the 'sustainable cities' literature seriously questions whether it is possible to resolve urban poverty without significantly reducing the high levels of urban over-consumption by the middle and rich classes" (Swilling 2004).

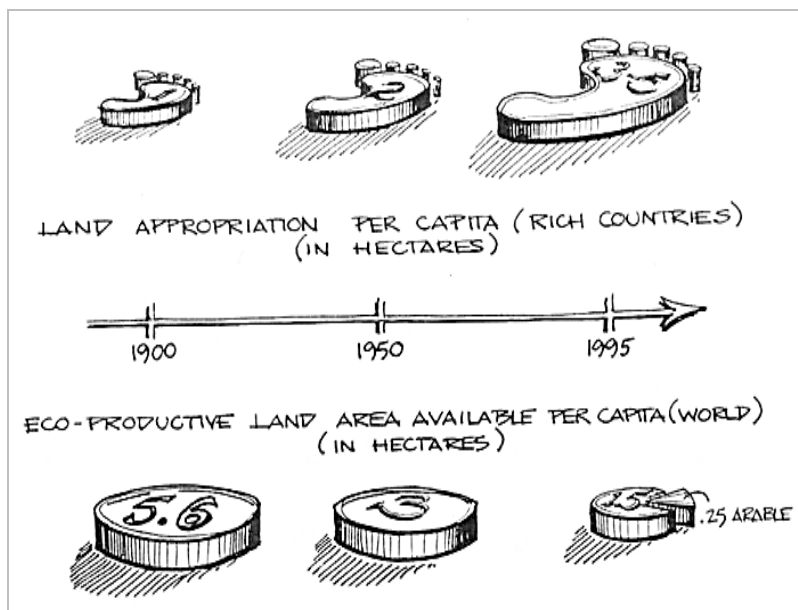


Figure 12. Depiction of the Ecological Footprint.

"Our ecological footprints keep growing while our per capita "Earth-shares" continue to shrink. Since the beginning of this century, the available ecologically productive land has decreased from over five hectares to less than 1.5 hectares per person in 1995. At the same time, the average North American's Footprint has grown to over 4 hectares. These opposing trends are in fundamental conflict: the ecological demands of average citizens in rich countries exceed per capita supply by a factor of three. This means that the Earth could not support even today's population of 5.8 billion sustainably at North American material standards". (Wackernagel & Rees 1995).

Figure 13. Explanation of the Ecological Footprint. Wackernagel and Rees 1995.

### The complex issues of urban sustainability

Cities in this century have an astounding number of complex issues, resulting in unsustainability, to manage.

Ecological concerns are high on the agenda, such as high volumes of waste and scarce landfills, urban sprawl, greenhouse gas emissions and the threat to climate change from growing numbers of vehicles, loss of bio-diversity as the urban edge encroaches on the natural environment, and the practice of 'environmental racism', with developed countries and transnational corporates using developing countries as their factories, thereby transferring the cost of their high-consumption lifestyles to other regions (Satterthwaite 1997: 1668). Neither have the past forty years of sustainability activism made any difference; "every one of the planetary boundaries is trending in the wrong direction" (Bakker 2013). In the case of Cape Town, the City's fragile ecological resources are under threat, not only from climate change, but because of the relentless pursuit of economic growth, at the cost of the environment. Development economics recommended to the South African Government by a Harvard Panel of economic advisors have had deep and devastating effects into the social fabric of the country, escalating the income-divide between the wealthy, the middle-class, and the poor. What needs to change is the "... total dominance of policy-making by people trained in the economic, social and spatial sciences. Ecologists, climate scientists and biologists must be brought more firmly into the policy-making environment" (Crane & Swilling 2006).

Infrastructural and societal demands place a huge burden on cities. The explosion of slum urbanism and numbers outpacing municipal provision of services, results in overcrowding, informal infrastructures, and silent encroachment on city services of energy and water. The lack of secure land tenure and poor living conditions, often in the most run-down buildings, go hand-in-hand with poor education, crime, poor health, and generational misery (Satterthwaite 1997:1669). Splintered Urbanism - the antithesis of Inclusive Urbanism (universal access) - is applied to service delivery, providing first-rate municipal services to the wealthy citizenry through third-party service deliverers, while the poor are serviced at a lower standard (Swilling & Annecke 2012). Building social capital and creating networks of trust in communities under such circumstances (the 'edge of chaos') are challenging, particularly where there are minorities, historically disadvantaged groups, or new arrivals (Gilchrist 2004). Public space very easily becomes contested space.

Historical systems of building and road regulations, and sewage, water, and electricity provision, often lock municipalities into inaction. On the one hand, huge investments to change to more sustainable systems are required, while on the other hand, engineers work to performance goals, and would find it hard to admit that there are faults with the old systems (Satterthwaite 1997, 1685). To break this mould the "right balance of order (rational planning) and disorder (bottom-up participation, and inclusion of a diversity of views) is needed" (Muller 2012b).

Colonialism and Modernism resulted in societal inequality and spatial and economic injustice in cities, and provide specific challenges to attaining sustainability. Colonial cities were built for governments, decision makers, and the rich, separating "...the rulers from the ruled, politics from the polity, the educated from the illiterate, and decision makers from those for whom the decisions [we]re made" (Malik 2001). Modernism was based on the principles of dividing life's activities into work-, living-, commercial-, and recreation-places, through deliberate planning and layout; with broad buffer partitions between areas. Relying on cheap oil and the technology of the motorcar, this resulted in outlying suburban sprawl, un-crossable highways, separated communities, dead in-between space, long hours in traffic, pollution, and isolation (Dewar & Todeschini 2004). Modernist rationality saw the city as a machine – not only could the city be shaped, but also society, "... with technology an eager co-conspirator" (Dewar & Todeschini 2004). Writers Jane Jacobs, Robert Venturi, Aldo Rossi, and Hassan Fathy reacted to urban Modernism in the sixties and seventies, critiquing the inhuman urban scale that was being created, the waste of land, the fragmentation of communities, and the social alienation that ensued (Malik 2001). In South Africa, Modernism played into the hands of the Apartheid regime, providing city planners with the scientific tools to achieve

racial separation, economic isolation, and limited access to educational and recreational amenities for the poor, already pushed to the urban periphery (Dewar & Todeschini 2004). As well, disciplinary silos developed during Modernism – urban planning, urban design, architecture, transport planning, transport engineering, landscape planning – with these equally disconnected from the other design fields, such as industrial, graphic or interior design (Dewar & Todeschini 2004). A more socially conscious role for designers is called for:

There is an important task for the architects and urban professions: to work out more socially relevant roles for themselves... to also become thinkers, participants and persuaders in the affairs of their cities in order to articulate a more relevant urban vision for the future which benefits not just the few but society as a whole.

Malik 2001.

Political pressures on city managers see them pandering to powerful vested interests - “richer groups will oppose what they see as controls on their right to consume or higher costs that arise from changed pricing structures to encourage conservation and waste reduction” (Satterthwaite 1997, 1685). In addition, city managers continue to punt the concept of ‘economic growth’ and ‘development’, which results in increased resource use, waste and energy consumption. A mature political governance, and democratisation and participation of civil society in decision-making to attain a more just society becomes imperative (Allen 2002 as cited by Pieterse 2010: 13).

Neoliberalism and globalisation have gained deep traction into the fabric of society. And cities – complex systems in themselves - are embedded within the larger complexities of global economics and cultural relations, liberalised trade and development, new urban and corporate governance, and the new division of labour (Byrne 2001: 11, Roberts et al 2009). Since neoliberalism elevates entrepreneurialism and economic freedom above democratic rights, globalisation, international capital mobility, and transnational corporations have flourished, at the cost of regulation of financial markets, state safety-nets, and increased inequality and social polarisation (Harvey 2005). Growth indicators have pre-eminence over social welfare and democratic indicators; allowing “the market to discipline politics (rather than) the social-democratic view that politics should discipline the market” (Clarke 2004 cited by Sager 2013:130). Urban governments have adopted goals, turned into policies, seen as necessary in the race to become part of the global economic city network. These are: public-private partnerships, a shared responsibility with private sector to finance and operate the transport infrastructure, public spaces and neighbourhoods being privately governed and secured, urban regeneration and gentrification led by property developers, special business-friendly zones meant to attract the Creative Class, and city branding and place promotion (Sager 2013: 131). Typical elements of the urban form and space are out-of town retail parks and up-market residential blocks;

waterfront developments and walkways; designations of an official cultural district with art galleries, heritage centres, and more; exhibition centres, science parks, and large-scale sports stadiums, often combined with conference facilities or office space; and gentrified inner-city neighbourhoods, often converting former industrial premises to apartments (Sager 2013: 133).

### **Finding paths of transition**

Various authors suggest paths of transition towards full urban sustainability, most of which require an increased state responsibility.

Ecological footprint monitors need to be promoted and applied across all income groups to raise awareness of per capita 'earth consumption' (Gasson 2002).

Practical urban solutions need to be implemented as part of a shift to a Carbon Economy (clean production and transport), and a Green Economy (cyclical flows and systems), such as locally-provided food, recycled water, community-based sewerage treatments and re-used water for sanitation, increased basic and preventative health services, reduced air pollution from industries and vehicles, an effective public transport system, increased efficiencies in energy substitution, zero to landfill solid waste recycling, urban land greening and urban gardens, densification, mixed-income, mixed-use application of land, conservation and recreational areas maintained, and new building regulations, requiring a sustainability audit (Swilling 2004).

*Bridging the Urban Divide*, addressed by the UN-HABITAT 2010/11 report, recommends five strategies which could be adopted by municipal authorities towards an 'inclusive city': improving access to basic services, shelter, health, education, to upgrade the quality of life of the urban poor; investing in human capital through education and other opportunities; creating lasting economic opportunities through labour-intensive work and projects; promoting political participation through channels for dialogue and negotiation; and promoting cultural activities to integrate ethnic minorities (UN-HABITAT 2010/11). In addition, paradigm shifts in these domains are essential: linear processes must shift to closed-circular with waste becoming a source of energy; the short-term focus and political gains should shift to life-long efficiencies and societal advances; sectoral silos should be replaced with integrated planning and service delivery, and privileged services to the rich should be replaced with excellence for all; the focus on providing economic infrastructure (transport, IT connectivity) and domestic services (energy, water, sanitation, solid waste removal - and housing)

should be at least equalled by the provision of public amenities (streets, parks, clinics, community halls, early childhood development centres, libraries) (Pieterse 2010:15-20).

Radical incrementalism (rather than measured implementation) is recommended; that would bring "... change into the world through more discrete avenues: surreptitious, sometimes overt, and multiple small revolutions that at unanticipated and unexpected moments galvanise into deeper ruptures that accelerate tectonic shifts of the underlying logics of domination and what is considered possible" (Pieterse 2008, 6). Alternative networks to the 'network infrastructures' that are used to perpetuate privilege need to be formed through recursive political empowerment, "... an individual process that deepens with time if individual efforts are consciously embedded in more collective forms of solidarity" (Pieterse 2008:7). This essentially represents a citizen movement, pushing back at vested interests in city management (characterised by many agendas, convoluted links, and exploitation by those holding power).

'Regenerative', a concept beyond Green Urbanism (which tries to 'minimising damage' to the environment), should be promoted: regenerative buildings, industrial processes, transport systems, neighbourhoods, and cities; to engage the public in the deep societal transformation required to place the planet on a more sustainable footing. This entails a move away from "...less bad to more good, from reducing damage to creating benefits, from sacrifice to contribution, from net zero to net positive" (Robinson 2013).

Coproduction is a methodology which "combines the provision of public goods/services needed with the building of a strong, resilient and mutually supportive community that could assure its members their needs would be met" (Albrechts 2012). It implies perceiving the customers of public goods as equal partners, using their skills, not only to deliver the required services, but to formulate policies and projects. This shifts the traditional power relationship between the state and the poor, and empowers the latter towards self-management and local control. Such an engagement is beyond mere participation, and the paths of negotiation would of necessity be "complicated and messy" (Albrechts 2012). While coproduction is a challenging concept, one wonders why it would not be applied to all levels of income groups; why only the poor? If the middle and upper income groups were treated as serviced clients, and therefore not involved in coproduction, would that not again deepen the sense of 'being treated differently' by the lower income groups?



## New indicators for city prosperity

New indicators for the measurement of city prosperity or well-being are necessary. Table 10 reflects a suggestion which includes environmental sustainability, equality and inclusion, and the quality of life enjoyed by citizens (UN-HABITAT 2012).

**Table 10. The UN-HABITAT City Prosperity Index**

Index	Definitions/variables
<b>Productivity</b>	The productivity index is measured through the <b>city product</b> , which is composed of variables such as capital investment, formal/informal employment, inflation, trade, savings, export/ import and household income/consumption. The city product represents the total output of goods and services (value added) produced by a city's population during a specific year.
<b>Quality of life</b>	A combination of three sub-indices: education, health, and public space.
<b>Infrastructure development</b>	A combination of two sub-indices: infrastructure proper, and housing.
<b>Environmental sustainability</b>	A combination of three sub-indices: air quality (PM10), CO2 emissions, and indoor pollution.
<b>Equity and social inclusion</b>	A combination of inequality of income/consumption, ( <i>Gini Coefficient</i> ) and inequality of access to services and infrastructure.

*Compiled by UN-Habitat, 2012 from various sources.*

This is a more reflective index to ensure urban resilience, than the ubiquitous Gross Domestic Product (GDP). The GDP drives countries and cities through unremitting competition, while there is no consensus between first- and second-world countries of what is included, which formulae are used to calculate it, and it utterly neglects the costs to society and the planet. It has only existed since the 1930s to keep account of the worth, value and wealth of nations, yet is kept alive for purely political purposes (Fioramonti 2013). This pursuit of the GDP results in a pursuit of economic growth - the only solution that policymakers and officials offer to lead a country or city out of the doldrums of inequality and poverty.

There are a range of alternative measurement indices which have been researched and proposed since the 1990s, by various development bodies. Table 11 reflects alternatives to the GDP as a city indicator, which better reflect human and ecological welfare. It will take political will to implement measurement instruments that more accurately reflect a city's true state of affairs.

**Table 11. Measuring Progress and Prosperity – various indices**

Index	Definitions/variables
<b>Human Development Index (HDI)</b> United Nations Development Programme 1990	HDI combines indicators of life expectancy, educational attainment and income into a composite human development index. It is a single statistic that serves as a frame of reference for both social and economic development, ranking countries by level of "human development".
<b>Genuine Progress Indicator (GPI)</b> Think-tank Redefining Progress 1994	GPI was developed as an alternative system to GDP measurement. It is used as a more inclusive type of economics based on "True Cost" economics, looking how the increased production of goods, and expanding services have actually resulted in the improvement of welfare or well-being of the people.

<b>Measuring Sustainable Development</b> UNECE, OECD, EUROSTAT 2005	This is structured around the concept of capital, as measured under four main dimensions – economic, natural, human and social – that all pertain to sustainability. The idea is to make this concept operational for public policies.
<b>Prosperity Index</b> Regional Research Institute, USA 2006	This index measures regional economic prosperity and tracks performance at city level, assessing competitiveness and identifying opportunities to improve business. Although based on economic prosperity, the index includes three main components: business, people and place.
<b>Commission on the measurement of economic performance and social progress, France</b> 2008	This Commission proposed to shift in emphasis from measuring economic production to measuring people's well-being, against a background of sustainability. The Commission concluded that well-being is better assessed on the basis of income and consumption rather than production.
<b>Legatum Prosperity Index</b> Legatum Institute, UK 2008	The index purports to measure national prosperity based on wealth and well-being, using a composite indicator. It ranks 110 countries based on eight 'pillars of prosperity': economic conditions, entrepreneurship and opportunity, governance, education, health, safety and security, personal freedom, and social capital.
<b>Redefining Prosperity</b> UN Sustainable Development Commission 2009	Prosperity is redefined based on three aspects: a) fulfilment of material needs; b) the social and psychological dimensions that contribute to an enhanced sense of identity, meaning, belonging and hope; c) individual capability to flourish in more prosperous environments.
<b>National Well-Being Accounts Index</b> New Economics Foundation, UK 2009	The index measures social progress based on subjective well-being. It combines two types of data: personal (emotional well-being, satisfying life, vitality, resilience, self-esteem) and social well-being (supportive relationships, trust and belonging).
<b>Global City Index (GCI)</b> Foreign Policy Magazine, Kearney and Chicago Council on Global Affairs 2010	The GCI measures the international standing of cities along five dimensions: business activity, human capital, information exchange, cultural experience and political engagement. The index results in competitiveness rankings of cities in terms of business opportunities and economic innovation.
<b>Sustainable Development Index</b> Department for Environment, Food and Rural Affairs, UK 2010	This index combines four sets of data: sustainable consumption and production, climate change and energy, protecting natural resources and enhancing the environment, and creating sustainable communities. The index is a composite of a total 68 indicators.

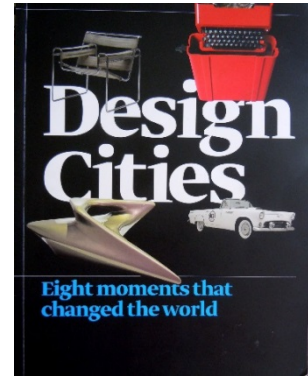
*Compiled by UN-HABITAT 2012 from various sources.*

### 3.3 'Design Cities'

As illustrated, a city is designed and shaped by many forces; various confluent factors could also make it a locus that attracts designers and design activity, which could fundamentally affect the fortunes of that city, and sometimes the history of the world.

In 2008 an exhibition, held in Istanbul and then in London, reflected eight such cities, which represented 'moments that changed the world'. The cities were London in 1851; Vienna in 1908; Dessau in 1928; Paris in 1931; Los Angeles in 1949; Milan in 1957; Tokyo in 1987; and London again in 2008.

Each of these cities had a unique historic opportunity, at a confluence of economic, social, political, and ideological forces and, importantly, within a technological revolution; each of the cities had people, personalities - to facilitate or accelerate the process. It is challenging to identify the true 'hero' of the story ('hero' as being the catalyst for the 'design moment') – was it the city, was it design, was it the designers? Or were these all 'heroes'?



The cities presented favourable conditions to encourage the expression of design activities, attracting many creative inhabitants, and putting the cities historically 'on the design map'. The conditions centred on technological breakthroughs, economic circumstances which encouraged innovation and trade, healthy and open political and academic debate, a degree of social mobility, and a strong desire to escape from the past, whether this was represented by stifling customs or the ravages of war. Design was expressed in architecture or urban form, industrial design through objects and making methods, graphic design, influencing advertising, marketing, lifestyles and social values, and systems design, expressed in particular philosophical approaches or political and economic movements. In most cases, design contributed to the international status of the city, the benefit of which still lingers. London, Paris, Tokyo, and Los Angeles are still on the list of Global Hubs, cities through which an enormous amount of finance flows, and part of the inner network of wealthy cities.

### **'Eight moments that changed the world'**

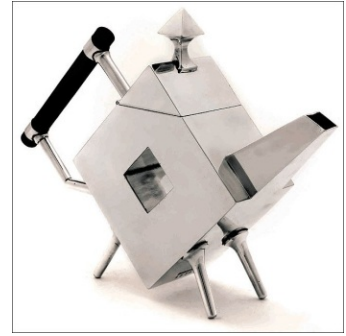
Appendix B provides a detailed description of each city's 'moment'. The key points are reflected below:

London in 1851 was the epicentre of the Industrial Revolution - a port city with good financial institutions. The first and second technological revolutions, which found expression in this city, changed the face of the globe forever, affecting the status of work, the division between designers and makers, social life, habitat, lifestyles, modes of making, exploration with new materials, and sources of energy, with side effects. Everything needed to be designed and re-designed. Factory-made objects and new forms of marketing led to the democratisation of design and luxury.

London, the first Industrial City, used its 'moment' to birth the new profession of design, with different specialisations, such as creating new products (industrial design), communicating how that product was to be used (communication design), how it was to be placed in the home (interior

design), how it fitted in with the owner's lifestyle (lifestyle design), and what new status that product brought to the owner (context design). Most significantly, the combination of the establishment of an exhibition to promote design, a school to educate design, and a museum to protect design, provided the most lasting and tangible legacy for a 'new way of doing things' (Sudjic 2008a). Prominent persons were Henry Cole, Owen Jones, William Morris, and Christopher Dresser.

*Kettle, by Dresser. [www2.ljworld.com](http://www2.ljworld.com)*



Vienna in 1908 was the centre of the Habsburg Empire, and a magnet to multi-cultural and talented creative thinkers and doers, for that period the "preeminent centre of art, architecture, music, philosophy and psychoanalysis" (Beyerle 2008). Poised on the sharp edge of tradition and innovation, and mid-way between the third and fourth technological revolutions, Vienna provided the fertile breeding ground for Modernism, an ideology expressed in objects and buildings. Important figures were Josef Hoffmann, Otto Wagner, Adolf Loos, and Michael Thonet. At the end of World War 1 the empire fell apart, and Vienna lost its status and confidence, and Austria lost many of its industries, never to be regained. While Vienna had been instrumental in giving birth to Modernism through many disciplines, it never became a truly modern city (Beyerle 2008).



*Thonet No. 14. [www.archiexpo.com](http://www.archiexpo.com)*

Dessau in 1928 was home to the Bauhaus school of design for a brief period, before lecturers and students fled the advance of Nazism. The Bauhaus provided a philosophical foundation to design which could be debated and adapted, and became the disseminator of the power and application of design and its transdisciplinary potential. Prominent thought-leaders were Walter Gropius, Ludwig Mies van der Rohe, and Marcel Breuer, who took their skills to Britain and the US (Sudjic 2008b).

**Bauhaus**  
**A B C D E F G H I J K L M**  
**N O P Q R S T U V W X Y Z**  
**a b c d e f g h i j k l m n o p q r s t u v w x y z**  
**1 2 3 4 5 6 7 8 9 0 . , / ? ! @ # \$ % & \* ( )**

*Bauhaus typeface. [bowfinprintworks.com](http://bowfinprintworks.com)*

Paris in 1931, the Beaux-Arts capital, was confident of its status as cultural capital of the world, with a sophisticated network of galleries and art-dealers. The city, "... skilled in the arts of luxury" (Sudjic 2008c), attracted the young and ambitious, as well as towering creative geniuses. Although the fourth technological revolution of oil, the automobile and mass production was being pioneered in the US, Paris was eager for modernity, and picked up the baton of Modernism, to give it form and language - in architecture, urban planning and design, furniture, and lifestyle objects. Creative thinkers such as Picasso, Le Corbusier, Eileen Grey, René Herbst, and Jean Prouve provided the impetus for this ideology to spread across continents.



*Architecture by Le Corbusier, [www.tumblr.com](http://www.tumblr.com)*

Los Angeles in 1949 was faced with post-depression economics, returning veterans, and young families facing unemployment. "A converging cluster of historic, economic, demographic, technological, social and artistic factors stimulated what became the mid-century's most vibrant design culture" (Smith 2008) - expressed through architecture, furniture and interior design (furnishings), industrial design (appliances), graphic design and publications, and the film industry. The fourth technological revolution was by this time in full expression in the US.

Los Angeles was the truest expression of the Broadacre City, and home to a group of socially- and progressively-minded 'architects, designers, artists, musicians, writers' (Smith 2008), led by Charles (architect) and Ray (graphic designer) Eames, and the publisher John Entenza. Together they birthed 'The American Lifestyle', which defined the shape and ethos of American cities, not just in the city form (space, highways), but also the freedom of expression, the social mobility, the shopping experience, the sense that 'everything is possible'. Through advertising, film and television this lifestyle was spread and became aspirational to many other cities.



*Los Angeles freeways. [www.lacarguy.com](http://www.lacarguy.com)*



Milan in 1957 was rebuilding itself after the war, with many buildings destroyed, many homes and possessions lost. There was a need for positive forward-thinking, filled with hope for a better future. The baton was picked up by an extraordinary group of designers and architects, supported by a group of adventurous entrepreneurs, promoted by a number of influential design magazines and significant exhibitions. Their task was the reconstruction of a society, freeing itself from the recent oppressive fascist regime and philosophy (Romanelli 2008). With all the innovations available from the previous technological revolutions, and, by now, a mature fourth technological revolution, Milan substantially contributed to the culture of Consumerism – to the obsession with ‘stuff’, brand-names, designer signatures, individual choice, and ‘la dolce vita’. Significant people of this time were Gio Ponti, Ernesto Rogers, Piera Pieroni, Ettore Sottsass, and Joe Colombo (Romanelli 2008). Student protests against ‘bourgeois decadence’ stalled this era abruptly, but only for a decade. Consumerism continues to be a powerful tool in the neo-classical economic model which was to follow, resting on expenditure rather than saving.



*Skyscrapers and High Fashion.  
Gio Ponti's Pirelli Tower, Milan.  
[therepublicofless.wordpress.com](http://therepublicofless.wordpress.com)*

Tokyo in 1987 not only benefitted from the buoyant economic and financial conditions which prevailed in the 1970s and into the boom years of the 1980s, but also from the fifth technological revolution of information and digital communication. The city seized the ‘moment’ and within 20 years after the war, Japan was striving to equate ‘Made in Japan’ with the highest quality workmanship (Popman 2008). As their economy roared along at breath-taking speed, Tokyo could be described by its high-rise buildings, shopping malls with flourishing fashion and retail shops, and particularly, new technology. Tokyo, as the birthplace of miniaturisation has liberated humans from being ‘grounded’ in one location, and has made mobility (access to information, to banks, to one’s social network, in any place, at any time) not only highly desirable but the expected norm. The firms of Sony, Olympus, Toshiba and



*Minutuarisation. Smaller. Slimmer.  
<http://uhaweb.hartford.edu/klotz/historyofcellphones.html>*

Matsushita led the field, with designers such as Kenzo Tange, Kisho Kurokawa, Tadao Ando, Issey Miyake, and Yohji Yamamoto gaining renown as architects and fashion designers (Popman 2008). Tokyo today has the distinction of being a Global City and the largest Mega City, with close to 38 million inhabitants.

21<sup>st</sup> Century London in 2008 was/is at the centre of the financial, transport, educational, trade, retail and digital world, recovering from the 2007 financial meltdown and the worst economic depression since 1929. In addition, by 2008, the global conversation about sustainability, climate change, non-renewable energy, scarce natural resources, inequality, food stress and homelessness was well underway.

Cosmopolitan, super-alive London attracts hundreds of young as well as experienced designers in a never-ending stream. It is a melting pot of social groups, across the income spectrum, from the homeless to the fabulously wealthy. London's famous brand names are designed by international designers from all parts of the world, owned by international companies, and not always manufactured on the island of Britain. London is design mature – it deliberately applies design as a generator of wealth. It is “... confidently inspired by materials, processes and information as much as by symbolic or cultural meaning. Design is used for personal expression, for commercial status, to create visible touchstones of culture, to distinguish what is ‘local’ from what is ‘global’; and it is used to communicate extensively to the public” (Campbell 2008: 128).

... new products, buildings, graphic languages and services harness technology for human needs and express the character of contemporary society. Prolific communication industries signify an open and enquiring society. Social welfare, quality of life and inclusiveness are preoccupations of design in advanced economies where design is an important aspect of democracy.

Campbell 2008: 126.

However, London design does not benefit all sectors of society, nor does it discourage Consumerism.

London's sharp inequalities of wealth might be seen to run counter to the idea of a flourishing design culture, or at least a failure of that design culture to impact on the society around it. Equally London's emphasis on untroubled consumption in the form of shopping and fancy real estate – rather than efficient and affordable public transport, for example – hardly suggests a culture in which design as a means to build a better world is taken seriously.

Campbell 2008: 124.



London has a prolific design education system, supportive legislation, access to advanced information technology, exquisite retail outlets, and has a public that is skeptical but charmed by designer cult personalities. The city has renovated itself with an iconic skyline and free access to cultural and retail amenities, such as the Tate Modern. It has a 'Design for London' team in the mayoral office. London epitomises 'design heaven' – the utter liberty to experiment, with a nod to values of sustainability and service to humankind.



*The Millennium Bridge and the Tate Modern Gallery, London. [www.theaustralian.com.au](http://www.theaustralian.com.au)*

These 'design moments' had meritorious results, but also debilitating fall-outs. It could be argued that they have contributed, short-sightedly and indulgently, to the acute sustainability challenges we now face – challenges of scarce natural resources; extreme inequality; peak fossil fuel reserves; an economic model which spectacularly favours the rich; and of an obsession with information without the maturity to process it. By the 21<sup>st</sup> Century design has certainly matured – it has different goals, different expressions, and is, in theory, at least, more socially orientated. But there is only an oblique focus on the ecology. 'Anthropocentric' is still the Descriptor.

A few correlations can be drawn between Cape Town and the historical contexts of these '*Design Cities*'. This will be done in Chapter 4.

### 3.4 World Design Capitals – 2008, 2010, 2012

The last city showcased in the *Design Cities* exhibition was London of 2008. In that same year, the first World Design Capital was celebrated in Turino, Italy. The following discussion will highlight the points of difference between the two approaches.

The goal of promoting design as both a Profession and a Solution to the challenges of the day – urban, environmental, societal, economic – led to a strategic alliance between ICSID (International Council of Societies of Industrial Design, with 50 nation-member countries), ICOGRADA (International Council of Graphic Design Associations) and IFI (International Federation of Interior Architects/Designers), and the subsequent launch of the World Design Capital project in 2008.

Acknowledging that cities are the focal point of country economies and population concentration, and therefore a critical testing ground for the effectiveness of design in the broadest sense, the competition/status of World Design Capital not only focusses on design achievements in a city's past, but also on its potential to deliver design solutions to its challenges for the future – “to make cities more attractive, more livable and more efficient” (WDC u/d). To quote ICSID president, Mark Breitenberg: “WDC is more than just a project or a programme – it's a global movement towards an understanding that design does impact and affect quality of human life” (Koblitz 2011).

The guidelines for the competition in the sample application cover a wide reach:

It is essential that your application clearly defines the aims and objectives of your city to hold the designation, as well as provide a detailed account of your city's contribution to design from a social, economic and cultural point of view.

WDC u/d.

### **Differences in approach**

There are key differences between the cities reflected in the *'Design Cities'* exhibition, and the World Design Capitals (as promoted by ICSID since 2008):

1. The *'Design Cities'* had earned the 'right' to be regarded as a 'design city', had held the baton over a period of years, and had birthed some world-changing design event (for example London 1851, the first design exhibition, museum and education; Vienna 1908, the birth of Modernism, Los Angeles 1949, the birth of highways and the American Lifestyle; Tokyo 1987, the birth of miniaturisation). The World Design Capital status, on the other hand, lasts for only one year, and, while based on past performance, looks to a legacy that a 'design intervention' could achieve, with design contributing to economic outputs, urban efficiency, social interaction and livability.
2. The source of human motivation: in the *'Design Cities'* it was the designers themselves, who, through their creativity and innovation, earned a reputation for a city, which in turn attracted other creatives. In the case of the World Design Capitals, the human motivation seems to be visionary mayors, city managers, and other key visionaries, who recognise the power of design to gain competitive advantage, and enhance the city's attractiveness in terms of tourism and investment.
3. In the *'Design Cities'*, design, innovation, and experimentation happened organically over a period of years; while the World Design Capital year event requires large sums of money from city management and private sector partners to stage events and projects, and promote the concept and application of design - which may hopefully prove to be a worthy investment in the fabric of the city.

To be designated a World Design Capital brings specific benefits and spin-offs: links are forged with other cities aspiring to the status of World Design Capital, as well as cities well-versed in applying design solutions. Media coverage draws tourists, design practitioners, and exchange students. Expectations are high, and the promises of the bid-book needs to be met – there needs to be visible

and tangible progress made in the aesthetics of a city, as well as the social interaction of its inhabitants, and their ability to benefit economically from a design-approach city.

2014 was a historic year for South Africa. It was the country's 20<sup>th</sup> year of democracy; Cape Town was the first African city to be awarded the World Design Capital status; Cape Town was eager to promote itself as a creative city, with design activities, successes and potential, and wanting to use the opportunity as leverage for change and redress in its city form, and its reputation as a highly segregated and unequal city (World Bank 1993, CIA World Fact Book). There were furthermore political points to be scored by the Democratic Alliance-led city management.

### Country Comparisons

Reflecting on the approach, programs and results of the previous World Design Capital cities – Torino, Italy 2008; Seoul, South Korea 2010; and Helsinki, Finland 2012 – would be useful before examining Cape Town, South Africa as the designated 2014 city.

Comparisons can also be drawn between the countries of the four World Design Capitals using two indices – the Gini index<sup>8</sup>, which measures inequality in a country's population, and the Human Development Index<sup>9</sup> (HDI), an indication of a population's well-being, according to various criteria. (Although the GDP is popularly used to reflect a country's economic growth, it is not a true indication of a country's development; it does not include the previous two indices, nor does it reflect the cost of production in terms of negative consequences to social and ecological resources (Fioramonti 2013).





City-by-city indices are not available in all cases, so country results are being used as general indicators of the state of the cities. Finland has a constant and favourable Gini Index between the 2000 World Bank rating (26.9) and the 2008 CIA rating (26.8). Italy, another European country, has improved its Gini Index between 2000 and 2011 (36.0 to 31.9); while the Asian country of South Korea has worsened from the World Bank's 2007 rating (31.3) to the 2011 CIA rating (41.9). South Africa, an African country, has slightly improved, from the 2005 CIA rating (65.0) to the World Bank's 2009 rating (63.1). South Africa is two-and-a-half times more unequal than Finland.

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<sup>8</sup> **Gini Index** (measures the degree of inequality in the distribution of family income in a country; the higher the index, the greater the degree of inequality).

<sup>9</sup> "The UN report covers 185 member states of the United Nations (out of 193). The Human Development Index (HDI) is a comparative measure of life expectancy, literacy, education, standards of living, and quality of life for countries worldwide. It is a standard means of measuring well-being, especially child welfare. It is used to distinguish whether the country is a developed, a developing or an underdeveloped country, and also to measure the impact of economic policies on quality of life. The index was developed in 1990 by Pakistani economist Mahbub ul Haq[4] and Indian economist Amartya Sen.[5]" [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_Human\\_Development\\_Index](http://en.wikipedia.org/wiki/List_of_countries_by_Human_Development_Index).





**Table 12. Gini Coefficient: Finland, Italy, South Korea, South Africa**

Country	World Bank Gini (%)	WB Gini (year)	CIA Gini (%)	CIA Gini (year)
 Finland	26.9	2000	26.8	2008
 Italy	36.0	2000	31.9	2011
 South Korea	31.3	2007	41.9	2011
 South Africa	63.1	2009	65.0	2005

CIA World Fact Book - Unless otherwise noted, information in this page is accurate as of December 6, 2013.  
<https://www.cia.gov/library/publications/the-world-factbook/fields/2129.html>.

With regard to the HDI, Finland, Italy and South Korea rank among Very High Development countries (2012 estimates), with South Korea showing a surprising ranking of 12<sup>th</sup> out of 185 countries measured. South Africa, on the other hand, ranks among the Medium countries, with a ranking of 121<sup>st</sup>, which has improved by 2 positions since 2011.

**Table 13. Human Development Index: Finland, Italy, South Korea, South Africa**

Country	Rank	New 2013 Estimates for 2012 (185 countries measured)	Change in rank from 2011 report to 2013 report
 Finland	Very High	21 <sup>st</sup>	▲(1)
 Italy	Very High	25 <sup>th</sup>	▼(1)
 South Korea	Very High	12 <sup>th</sup>	▲(3)
 South Africa	Medium	121 <sup>st</sup>	▲(2)

United Nations Statistics Division. <http://unstats.un.org/unsd/default.htm>.

It must be noted that Turino is not the capital of Italy; and Cape Town is one of three South African capital cities; while Helsinki is the capital city of Finland, and Seoul is the capital city of South Korea. It is not within the scope of this study to examine how closely these cities reflect their countries' profiles.

In terms of sustainability, two indices were referenced: the first, the Arcadis Sustainability Cities Index, conducted by the Centre for Economics and Business Research in the United Kingdom, ranks cities on 20 indicators in five key areas: the economy, business, risk, infrastructure and finance, in the sub-categories of People, Planet, Profit – acknowledging the delicate balancing act cities needed to maintain between planetary considerations, social well-being, and economic vibrancy. Neither Torino, Helsinki nor Cape Town achieved a mention in the top 50 cities, while Seoul was ranked in 7<sup>th</sup> place in the top 10 most sustainable cities in the world (Sustainable Cities Index).

In the second index, the Siemens' Green City Index, scoring cities on CO<sup>2</sup> emissions, energy, buildings, transport, water, waste and land use, air quality and environmental governance, the four cities rated as follows (Siemens Green City Index):

- Among European cities, Helsinki is ranked 7th, while Torino does not fall within the top 30 green cities.
- Among Asian cities, Seoul falls within the top 7 cities.
- Among African cities Cape Town scores in the top 6 cities.

### World Design Capital themes

The themes and applications of the different cities reflect the shift in design consciousness, from 20<sup>th</sup> Century Consumerism, to 21<sup>st</sup> Century responsibility. Although ICSID specified an official program of six key events, the application and outcomes of World Design Capital for these three cities have been quite different. Appendix C provides a detailed analysis of the Profile, World Design Capital programme, and the Results for the three cities. Table 14 provides a summary of city slogans and themes; Cape Town's 2014 theme and Taipei's 2016 themes are also reflected.

**Table 14. World Design Capitals and focus of the one-year programmes (more information in Appendix C)**

Date	World Design Capital city	Slogan	Focus of the year-long implementation
2008	<b>TORINO, ITALY</b>	"Another Green Colour"	Shift from an industrial city to a 'European city'. Green design, environmental sustainability, and many applications that are flexible and "produce an infinite range of sensations" <b>Themes:</b> Public design Economy and Design Education and Design Design Policies
2010	<b>SEOUL, KOREA,</b>	"Design for All"	Shift from a 'hard city' to a 'soft city'. "in coming years we'll see aspects of design in our everyday life" <b>Themes:</b> Urban revitalisation Sustainable urban development Quality citizen experience Activate the economy through design industries
2012	<b>HELSINKI, FINLAND,</b>	"Open Helsinki – embedding design in life"	Increase the use of design in Finnish society – focussing on "design education, user-oriented services and comprehensive solutions utilising methods inherent in design". <b>Themes:</b> Open City (human-centred design) Global Responsibility (urban and environmental challenges) Roots for New Growth (design to stimulate economic growth).

2014	<b>CAPE TOWN, SOUTH AFRICA</b>	"Live Design. Transform Life."	Design as tool for urban and social regeneration. <b>Themes:</b> African Innovation, Global Conversation. Bridging the Divide. Today for Tomorrow. Beautiful Spaces. Beautiful Things.
2016	<b>TAIPEI, TAIWAN</b>	"Adaptive Taipei – Design in Motion".	Design focussed on Life Quality and Health, Ecological Sustainability, and Urban Regeneration through Smart Living and Citizen Participation.

Torino, with 900 000 inhabitants and a well-established design and industrial base, tested the ground with human- and business-focussed applications (as well as a focus on education, and policies) in collaboration with international designers.

*Torino GeoDesign App.*



Seoul, with a very large population of 15 million (a rapid increase after the Korean War), and an enormous budget of ZAR2.4 billion (US\$180 million /€161 million;) focused on government projects affecting the urban form and citizen experience – for social cohesion - driven by an enthusiastic mayor. Huge expenditures were dedicated to public and recreational space, greening projects, and citizen amenities.

*The Cheonggyecheon Restoration Project - a vibrant public space. popoloasis.wordpress.com*



Helsinki, again a much smaller city of 590 000 people with a vibrant economic, cultural and educational life, and a budget of ZAR265.4 million /US\$19.9 million/(€17.8 million), garnered the support and action of academic institutions and the private sector, with a wide range of practical, first-world applications. Helsinki claims that one fourth of the jobs in the Helsinki region are design-industry jobs. One of the more ambitious legacies that Helsinki hoped to leave was the Design ROI (return on investment) tool, which would measure the impact that design, as a strategic tool, could have on an organisation, measured in growth and turnover. (There is, as yet, no measurement tool for design's impact on societal or ecological challenges).



*The Kamppi Chapel of Silence. www.itsnicethat.com.*

### 3.5 Concluding remarks

Design is inextricably linked to the shaping and development of urban spaces. It is frequently 'captured' by political-economic ideologies, which manifest in the plans and shapes of cities and the formation of urban society, such as the Beaux-Arts movement, Colonialism, Modernism, Neoliberalism, and the present urgency to be counted in the 'World City' league.

In a growing-shrinking world, with sharp competition for resources and investment, cities are seeking to intensify the conscious contribution from 'Design' – by city planners, architects, merchants, marketers, designers, entertainers, citizens – to gain a competitive advantage. This is the driving force behind the promoters of such concepts as World Design Capitals, Innovation Capitals, Capitals of Culture, Capitals of Technology, Capitals of Mobility, the Best-Living Cities in the World, Creative Cities and Cities of Ambition (Landry 2008, 2015).

The impact of design was unmistakably felt in the 'design cities'. The fact that these cities were the loci in which technological revolutions played out, ensured that their design influence sent a ripple effect around the globe, for better or worse.

The impact of design was also felt in the WDC cities of Torino, Seoul and Helsinki; changing the city form, educating citizens to the benefits of design and design thinking, raising the profile of the discourse of people-planet-profit, increasing production and hopefully jobs, international design collaborations, an increase in tourism, and many small applications, which make life easier to live.

But the benefits did not seem to 'filter down' to all citizens. For example, a February 2013 article of the McKingsley Global Institute calls for a second 'Miracle on the Han River', pointing out that although the GDP in South Korea has nearly tripled over the past 20 years, growth has decoupled from ordinary citizens, with "real wages rising at less than half this rate", and very high suicide rates, high divorce rates, and falling birth rates. Part of the problem is that large manufacturing companies have become global players, and one third of home jobs have been lost since 1995. A new economic model is needed to combat rising unemployment and inequality and declining growth (Choi & Dobbs 2013).

Much depends on the vibrancy of the socio-economic base from which the World Design Capital initiative is launched. The design literacy of citizens – an existing design culture – also plays a key



role. The level of design education, which has produced an adult population in the corporate sector familiar with design, and willing to apply it in their businesses, is another key factor. And the money invested in programs and projects by the city management plays a significant role – this, of course, is open to citizen contest depending on the city's political stability.

A one-year 'intervention' such as World Design Capital is just the beginning. The advantages gained need to be followed up by continued design communication, education, application, and collaboration.

Results from other countries are used to justify the investment in design - in British companies, for example, investment in design activities or programs has been calculated to multiply income by two and a half times. Danish companies investing in design have shown a 22% greater growth than companies not investing in design - an advantage which could rise to 40% with continuous investment (WDC Helsinki). (It is not stated whether this increase in income and growth has resulted in increased job creation).

As the creative notions for cities are conceptualised and implemented, it is not just the physical footprint of buildings and roads that are being designed; lifestyles and cultures are being designed and adapted. There is an equally-strong trend towards human-centred considerations, as towards technology-centred aspirations. Technology *in the service of* promoting individual freedoms and rights, justice, and social cohesion, needs to be more clearly articulated in design; possibly someone will come up with a suitable city-label.

To establish how a city rates in terms of the three spheres of sustainability – social, environmental, and economic – cognisance must be taken of the complex and critical issues contributing to unsustainability and inequality, the suggested paths of transition, and the required paradigm shifts to address systemic challenges.

In the next chapter the 'State of the City' of Cape Town will be examined and its sustainability in these spheres considered.

# 4 Cape Town - the State of the City

## Introduction

In order to understand the World Design Capital intervention, it is necessary to gain an understanding of the complex, 21<sup>st</sup> Century, African city, that is Cape Town. This will be done through a number of lenses.

But first, on a personal note: in 2007, while employed at the Cape Craft and Design Institute, I project-managed a competition and exhibition for wire artists. The exhibition was entitled *wire+plus [this is my Cape Town]*. Eleven large wire sculptures were produced, exhibited and subsequently auctioned. The eleven wire-artists all happened to be immigrants - ten Zimbabweans and one Malawian, for, though wire-art is widely prevalent in South Africa, it was originally a Zimbabwean art-form, and the best wire artists still hail from that country. Their artworks depicted various aspects of the city which, on consideration, reflect the multi-faceted story of the city. Their perspectives were just one of many to shape my understanding of the City of Cape Town.

**John Mkandawire** displays his symbol for Cape Town, wine, and a nod to botanical graces. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.



For the past 3 years, I received every meticulously-worded news release issued by the City; read their quarterly and annual reports, and have sourced graphs and tables from their 2014 State of Cape Town report. At the same time, the print and digital media reflected the more sensational, gritty events around protests, housing and toilet issues, crime and gangsterism. Academic reading provided the rational, aloof analysis of the city. And because I worked in the design sector, that perspective intruded pertinently into my perceptions.

To understand Cape Town, one must simultaneously see the city through 4 centuries of history. Since the Dutch East India Company set up a refreshment station in 1652, and colonial land acquisition through expropriation from the indigenous Koi and San commenced, this has been a region of contest. Great Britain annexed it in 1795, but returned it to the Dutch according to the Treaty of Amiens in 1803; only to re-occupy it in 1806 (Getty Thesaurus). South Africa was a Union and part of the British Commonwealth until 1961, when the imperialist rule was thrown off, and it was declared a Republic. It took another thirty-three years before Apartheid was shaken off and the first democratic elections were held in 1994. These layers of history live on – through the people groups, the architecture, the urban form, the social structures, the languages, and the deep economic divisions (Terreblanche 2002).



*Beautiful Cape Town. Bruce Sutherland, City of Cape Town*

## 4.1 Cape Town – stakeholders and contestants

Cape Town in 2015 still maintains its 'Mother City' image, albeit slightly schizophrenic. It is the seat of national Parliament; and has grown to 3.7 million inhabitants (SA 2011 Census), with projections of 5.7 million by 2030. Inside its urban edge it covers 2 500 km<sup>2</sup>. With such a palpable presence of mountain and sea, a climate that until now has supported Mediterranean vegetation, alluring wine

farms, small towns and resorts, historic architecture, and an interesting peninsula, the city is really very beautiful (CCT Bid Book 2011: 32; Pieterse 2010: 62).

But into the distance, the beauty fades. Beyond the old city limits, out onto the Cape Flats, people grapple with a different reality every day. These are the areas of banishment through forced removals in the Apartheid years; where the descendants of slaves and indentured labour of the Colonial time were dumped as so much unwanted humanity. These memories and wounds run deep. And they are fertile ground for radical political contest.

A 2002 study conducted by the Department of Sociology of Stellenbosch University introduced the key stakeholder groups to a future vision for the city. The study recorded agreement about the goals, but exposed the deep divisions and suspicions between the groups (Eva 2002). The future vision proposed four goals for Cape Town, namely Global Economic Competitiveness, Redressing Spatial Inequalities, Quality Urban Environments, and Management for Sustainability. And while all respondents supported the vision as sound, and could acknowledge the merging of global and local city issues, "... without exception, respondents felt strongly that a huge gap exists between vision and delivery, between theory and application, and between lip service and sincerity" (Eva 2002).

The stakeholder groups interviewed were politicians, senior city managers, business, labour, planners and members of the community. In these groups, disunity and distrust were particularly expressed between labour and business; citizens and the 'state' (politicians); and politicians on the one hand and managers and planners on the other. Entrenched interests, favoritism, political bias, and lack of capacity and will, were levelled at politicians, while citizens were overwhelmed by feelings of disempowerment. Planners and managers had a job to do and a historical past to redress – methodically - and were impatient with political posturing and protest. Labour expressed opposition to the neoliberal economic approach, and were "... deeply sceptical about the linkage between global competitiveness and poverty reduction" (Eva 2002). These are powerful biases to overcome.

Within City management, as well, there are four distinct groups with quite different concerns: politicians that make party-specific promises and launch party-specific attacks; the management team that strives towards clean audits; the administrative staff, a level down, and the guardians of compliance in procedures; and the technical implementation staff, who work closest to the ground and are responsible for physical roll-out. To achieve a common vision among these diverse points of departure demands skillful leadership.

Exploring the tensions of complexity, planning, and accountability, in a city, we note that “Cities are extraordinary organisations. They manage a level of complexity that would stymie most corporates; and they are subject to a kind of scrutiny, and a kind of legislative control, that would make the private sector rebel” (Sullivan 2014). Increased demands are placed on city management for ever-improving services, with reference to the Kano Model: what ‘delights’ today, becomes a basic need tomorrow (Sullivan 2014). The Kano Model is a theory of customer satisfaction developed in the 1980s by Professor Noriaki Kano. Some services, while meeting needs, go unnoticed until lacking; other services contain delightful innovation and satisfy, but soon get taken for granted, sink to ‘basic needs’, and demand more innovation.

The task of formulating the goals of a city through a consultative approach should be emphasised; what could take place is “... a shift to acknowledge the immense diversity, layers, shifting scenarios, power blocks, and forming of new identities – listening to the inhabitants of a space”, from which scenarios would emerge, far more helpful to planning processes than imposed orderly systems (Swilling et al 2010). Learning to cooperate with these informal structures, rather than ignore them, would allow for a “braver approach to sustainability” in dealing, for example, with overconsumption by the ‘silver spoons’ and a fairer distribution of resources (Muller 2006: 1058-1063).

The *Cape Town 2025* study, conducted for the City of Cape Town in 2005, highlights points of urgency and un-sustainability. Governance and Leadership should operate at many levels of society, making Public Participation much easier. Partnerships should be fundamental among the different spheres of government, private sector and civic society. The values of Sustainable Development, Social Equity and Justice, and an integrated Urban Form need to be fundamental to every action of Planning, Economic Development and Job Creation (Van Heyningen 2006: 3-9 as cited by Naidoo 2011).

Through its 12 business units and more than 25 000 employees, the City of Cape Town, with a budget of R34.8 billion (2014), provides services to a growing population of 3.7 million people, over an area of 2 500 square kilometres. Although a medium-sized city by international standards, it is still a very large ship to steer, not to say shift direction. Leadership in Cape Town is particularly challenging.

There is a deep, psychological duality within the city. Cape Town vacillates between being the nurturing Mother City, and the demanding, judgmental Unloved Child. The latter could have its roots in the oppression and usury of the First People, layered by its history of slavery, Colonial rule, and Apartheid oppression (Schmidt 2010). The city oscillates from being open and welcoming to ‘the

culture of diss'. The word derives from disrespect, and links to "disdain, dismiss, dissociate, disparage". "In my experience, many organisations in Cape Town have a culture of negativity characterised by resistance to leadership and innovation and a pronounced tendency to question people's integrity and motives" (Schmidt 2010: 35). This duality is often seized upon and manipulated by political leaders.

Terreblanche (2002, 2012) lays this firmly at the door of 360 years of colonialism and slavery, followed by Imperialism, Apartheid, (characterised by subtle or overt land-theft, dispossession, deprivation, and humiliation of the black people groups by the white tribe) and recently the neoliberal market system, which, in the twenty years of democratic rule, has only entrenched the divisions.

## 4.2 A Vision for Cape Town

As background, it must be noted that Cape Town's Spatial Development Framework (SDF) and Integrated Development Plan (IDP), identify sustainable and equitable growth as goals, and initiated policies and action plans to address issues such as climate change, the preservation of the natural environment, agricultural land, and the urban edge; informal settlements and integrated housing; transport and water services, and solid waste management (CoCT 2012).

In an important speech in June 2013, Mayor de Lille made a number of important points: *Firstly*, she emphasised the changing world dynamics, where economics, trade, and global relationships had shifted from nation-states to cities. Cities had become the drivers of economic growth and social change. *Secondly* she emphasised that urban population had already outstripped rural population; that cities more than ever presented the promise of personal betterment; that Cape Town, as a mid-sized, well-run city was attracting many immigrants, swelling the existing population; and that Cape Town was well positioned to develop competitive advantages or specialisations (De Lille 2013).



*Thirdly* she made a strong point that the City of Cape Town viewed ‘social development and economic development as two sides of the same coin’ (De Lille 2013). Referring to the City’s recently introduced Economic Growth Strategy and its Social Development Strategy, she said: “You cannot speak of creating a city of opportunity for everyone if you have not planned for the needs of the most vulnerable. And you cannot hope to permanently lift people out of poverty if you do not attract job-creating industries and businesses that create the prospect of employment” (De Lille 2013). These two strategies both align to the National Development Plan, and the City’s Integrated Development Plan, but the key component in a city and its success lies with its network of human relationships; “... the driver of social and economic change is the historic, cultural and social networks of people of which Cape Town is comprised” (De Lille 2013).

In this speech, the Mayor deftly defended an economic growth approach, tied it intricately to a social justice agenda, asserted the City’s commitment to national goals, and steered towards the five pillars of the City’s Integrated Development Plan: to establish Cape Town as the Opportunity City (emphasising both ‘economic growth’ and ‘sustainable environment’); the Safe City; the Caring City; the Inclusive City; and the Well-run City. Figure 14 provides detailed focal actions to achieve each goal.

Over the past nine years, the City has invested R40 billion in capital funding for infrastructure, primarily in the Bus Rapid Transit system, the City’s broadband network, Voortrekker Road corridor, N2 corridor, a

The 5 Pillars of the City of Cape Town’s Integrated Development Plan 2012-2017 which is based on the Spatial Development Framework and links with the National Development Plan and OneCape2040.

**Strategic Focus Area 1 – The Opportunity City:** attracting investment to support economic growth and job creation (promoting key sectors such as tourism and events, call centres, oil and gas, boat-building, agro-processing, the green economy, craft production clusters, and health and medical technology), pursuing OneCape2040 goals, providing and maintaining the infrastructure to support economic growth (water, sewerage, storm-water, the coastline, solid waste, energy, roads and streets, a fibre-optic network), a sustainable environment through efficiently using resources (water management, alternative energy, recycling and minimising waste, retrofitting, a climate change adaption plan), an integrated public transport network, applying the City’s assets towards economic growth and sustainable development (CTICC, vacant land, Bellville Velodrome), training and skilling.

**Strategic Focus Area 2 – The Safe City:** efficient policing and emergency services.

**Strategic Focus Area 3 – The Caring City:** social services, primary health care and substance abuse treatment, liveable human settlements (housing, rental, informal settlements, backyarders), environmental health services (water quality, air quality and pollution management).

**Strategic Focus Area 4 – The Inclusive City:** responsiveness through a means of communication (free call centres), civic amenities to make people feel at home (such as libraries, sports fields, parks).

**Strategic Focus Area 5 – The Well-Run City:** structures, management, training, responsibilities, service delivery, financial management, procedures, transparency, compliance, audits.

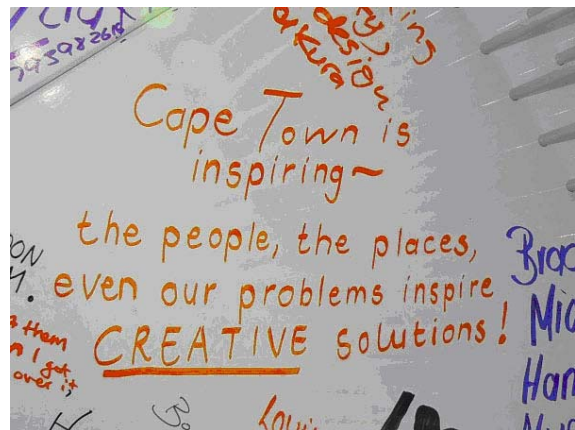
*Figure 14. City of Cape Town’s Integrated Development Plan 2012-2017 (2013/2014 Review).*



single zoning scheme, and an online system of building plan submission, driven by the Economic Growth and Social Development strategies (CoCT 20 May 2013).

Cape Town has pressing challenges. Sullivan (u/d) lists housing, sanitation, transport, crime, the urban edge, global warming and food security. Dewar (2009) adds tuberculosis, informality, child-headed households, land for cemeteries, land for livestock, land for cultural practices, and the use of scarce plants for traditional medicines to this list. Along with its regular managerial duties, the City's management needs to come up with exceptionally innovative ideas to face the challenges and its wicked problems.

The Cape Town 2014 website in 2011 maintained that, just as New York may be associated with 'energy' and Paris with 'romance', 'innovation' was the associative word for Cape Town (CT2014 2011). Whether this is true, may be questioned. Cape Town, for all its intricacies and convoluted history, may well possess that amazing quality of rugged inventiveness that could make it worthy of being a 'design city'. This aspect will be further examined in paragraph 4.11.

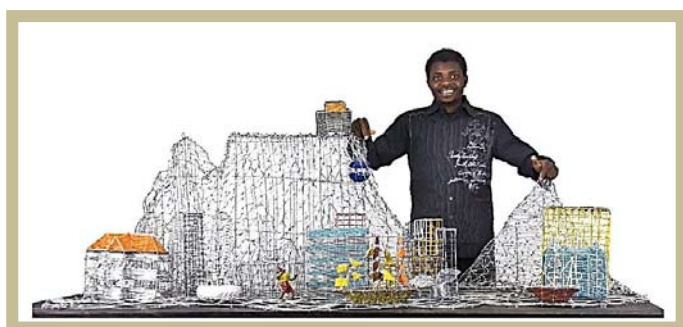


*This photograph was taken at the Cape Town Tourism stand at Design Indaba Expo 2011. The stand asked the question "What makes Cape Town a design city?" and visitors were able to write their own answers on the stand.*

## 4.3 Urban Form

### The evolution of cities – and Cape Town

Cape Town's development can be traced through many of the urban forms examined in Chapter 3. Initially established along the European-East Indies trade route, it tapped into the resources at hand – nature and agriculture – and, with time, commercial, financial and



*Herbert Suzwa's sculpture was crafted with curved, woven wire and scooby wire – an ethereal piece, hardly solid, which reminded of motion, flows, constant shifting and transformation. A city of flows. CCDI 2007 exhibition: wire+plus [this is my Cape Town].*

educational institutions were formed. Cape Town, as the original gateway into the hinterland, still carries the status of the Seat of Parliament, and therefore wields legislative power.

As the first colonial settlement in South Africa, Cape Town bore the full brunt of urban planning designed to exploit a territory for the benefit of a European power. The colonialist rule of the Netherlands was followed by the imperialist rule of Britain and formed the foundation for century-long disenfranchisement of the people of origin and other racial groups who were brought in through slavery or who migrated into the area (Terreblanche 2002; Balson 2007).

The city was founded on a confluence of nations and cultures, both from the West (Netherlands, England, France) and from the East (Madagascar, East Africa, Malaysia), as well as the ill-treated People of Origin. This mix, although dominated by the colonialists and imperialists, ensured a vibrancy of cultural expression, art and language.

As to urban form, the city followed the colonial pattern: transport to the harbour was paramount, while residential areas were strictly demarcated to keep the workers and slaves beyond the 'green belt'. As the inner city grew, the 'green belt' was adjusted and the workers moved to ever further settlements from the city center. The central city, within its confines of mountain and sea, created its own imposing Beaux-Arts ambiance, through the stately City Hall, Parliament, governor's residences, and privately owned bank and company head offices.

Cape Town – is a typical colonial city: '... a strict separation of administrative, commercial, industrial and residential space, a separation typical of the modernist concepts being promoted in Europe at the time' (O'Conner 1983: 199, cited by Beall & Fox 2009: 55). "Former colonies were left with infrastructure designed to funnel goods abroad instead of encouraging domestic circulation, with national boundaries that did not reflect pre-colonial political geographies, with unbalanced urban hierarchies, with cities designed to segregate, and with a variety of institutions – such as property regimes and regulatory frameworks – unfit for inclusive development" (Beall & Fox 2009: 55).



*The N2 Highway – a graphic example of spatial demarcation.  
snipview.com*

Where Colonialism and Imperialism paused, Apartheid took over. Building on the 'timely' mid-20<sup>th</sup> Century modernist urban planning philosophy of separating urban space into areas for work, living, recreation and industry, as well as the Broadacre approach of suburbs, broad highways, and buffer green areas, the Apartheid regime meticulously applied these principles to the separation of people groups, always to the benefit of the white ruling class (Dewar & Todeschini 2004; Malik 2001). Urban separatist planning also manifested in economic isolation, with scant access to mainstream business opportunities and work, banishment to living areas on the periphery of the city, and sub-standard education and health facilities, societal inequality and spatial and economic injustice (Malik 2001; Terreblanche 2002). The design of the modernist city had become a form of social engineering; and this form of design became entrenched as a overarching system.

A 1993 World Bank Mission to South Africa reported that Cape Town represented "...the most extreme forms of spatial distortions which, one could arguably say, has not been observed in any other place in modern history" (World Bank 1993: 5).

The Group Areas Act of 27 April 1950 gave the government the power to create racially segregated areas for Whites, Africans, Indians and Coloureds, and to forcibly remove people of a different racial group from the one for which the area had been designated (SA History u/d). Cape Town experienced a series of forced removals; in 1952 the Bo-Kaap was declared a Malay-only area; in 1957 the same applied to Schotsche Kloof; also in 1957 Sea Point was proclaimed a Whites-only area; in 1964 central Cape Town was declared a Whites-only area; in 1966 District Six was proclaimed a White area, with over 60 000 people forcibly removed in the subsequent years to the Cape Flats; in 1967 Simonstown was declared White, and Coloured and African people moved to other areas (SA History u/d). These settlement patterns are hard to break, up until this day.

After the first democratic elections in 1994, city population swelled, as masses from rural areas moved in, augmented later by immigrants from other African continents. Slums and informal settlements rapidly developed in ecologically-sensitive or outlying areas, "relegating both people of colour and the urban poor to its fringes. This denied these people equitable access to resources and opportunities, not least the opportunity of making their own contributions to a better city" (Koblitz 2011).

## Current urban shifts

As the city grew and expanded, it went through a number of adjustments. The 1980s saw suburban flight, which resulted in a slump in inner-city business activity, maintenance, safety, and residences. In 2000, a public-private partnership was formed – the Cape Town Partnership – to revive the inner city. Inevitably, this ‘clean-up’ went hand-in-hand with gentrification. And in later years, more iconic buildings were added, such as the International Convention Centre, and the 2010 Cape Town Stadium. At the same time low-cost housing for the Reconstruction and Development Programme (RDP), supported by small grants, were developed in areas remote from the city center on cheap land, adding to the problems of city sprawl and difficult economic access (Turok & Watson 2001).

Capitalising on its historic location, heritage buildings, and the unbeatable natural setting of mountain, coastline, and harbour, the central city is once again alive with restaurants, service and high-end production businesses, public spaces, events and festivals, with a growing residency rate. “The city centre and areas close to the centre have maintained their economic dominance; therefore Cape Town remains a monocentric city” (Sinclair-Smith and Turok 2012). “Investors, young professionals, day visitors and tourists benefit more than the peripheral metropolitan majority” (Pirie 2007). Linked to the ‘re-birth’ of the ‘Mother’s’ inner city, the City has joined in the global race to be innovative, a world class city, focusing on the knowledge economy. “Despite inclusive rhetoric, the Africanisation of post-Apartheid central Cape Town is less evident than its ‘glocalisation’” (Pirie 2007).

The central city of course draws homeless people, who are being encouraged off the streets into shelters, by the City’s Homeless People policy. There is the inevitable question about the ‘right to the city’ (Harvey 2008), a silent struggle, as the city’s approach is to ‘care’ for homeless people. And gentrification continues in the inner city (Naidoo 2012).

The interests of developers, laced with political motives have entrenched themselves in the wider city – one of the most obvious being the case of Century City, well-documented by Marks and Bezzoli (2000) - ‘cities’ established within the city, demarcating exclusivity, yet tapping into the service provision of the city coffers, not echoing or contributing anything authentic towards the cultural fabric of the host-space. However, it must be noted that in May 2014, the City announced a new Development Charges Policy, whereby the “policy aims to ensure the City’s financial sustainability by recovering the cost of increased loading on municipal services from the developer” (CoCT 2014), to prevent unfair benefits to those already financially privileged.

Gated developments such as Century City do not contribute towards social cohesion. Another development, namely Silvertree Estate next to Westlake Village, reflects the indifference and rejection created by the high walls of an imposing, exclusionary development, signalling impenetrable social barriers. The consequences are as much the result of the Master Plan, as of the attitudes of social indifference (Lemanski 2006).

The Cape Town Spatial Development Framework Technical Report of 2010 contained the following recommendations for the urban form:

*ONE:* The space must be managed with resilience to changes and unexpected events in mind.

*TWO:* Natural assets need to be preserved and must form the identity of the city.

*THREE:* Access routes should adjust the radial format to a grid, criss-crossing format for ease of movement.

*FOUR:* Land usage can be intensified and provide for mix usage, also including densified development corridors, urban nodes and civic precincts (such as Voortrekker and Klipfontein Roads).

*FIVE:* Urban edges should be respected, and development targeted in specific directions with needs and potential.

*SIX:* Destination places and landmarks must be preserved and others developed (CTSDF 2010).



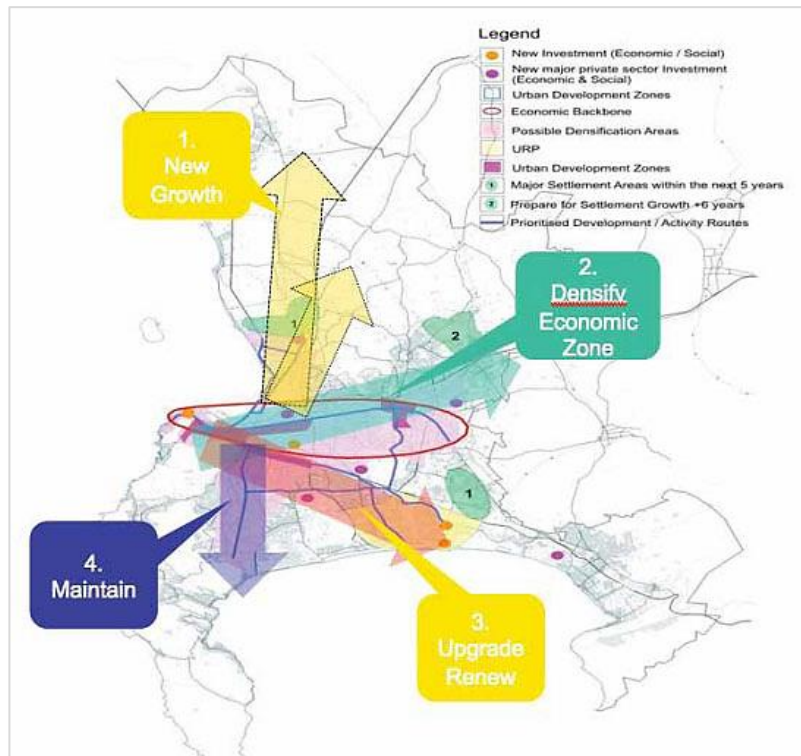
*Artist's impression of the Voortrekker Road densification development.*  
<https://www.capetown.gov.za/en/Planningportal/Pages/Spatialplanning.aspx>

The end goals of these principles of urban form are to improve employment and economic access; to manage the urban growth and maintain a balance between environmental protection and urban development; and to achieve an inclusive, integrated city (CTSDF 2010).



Present planning, building on the existing form of the city, recommends upgrading for the South-East townships and suburbs, maintenance for the Southern Suburbs and South Peninsula, densification for development corridors to provide both social housing and business opportunities, and new growth to the West of the city.

Figure 15. Directions of development - Cape Town 5-year IDP 2011: 16.



“The City’s infrastructure roll-out is guided by clear strategies, with the aim of transforming the city over time, away from the low-density Apartheid model to one that is more compact and which advances operational efficiencies for service delivery, economic activity and personal time” (CoCT 26 Aug 2015). However, due to investment in wealthy suburbs, the development of gated housing, and the spread of RDP housing in outlying cheaper areas, the city has experienced de-concentration, rather than the required densification (Sinclair-Smith and Turok 2012).

A controversial development, opposed by academics and urban planners, but approved by the City, is earmarked to launch in 2020. In complete contradiction to tenets of the SDF, referenced above, Wescape will be “... a self-sustaining mini city of 3100 hectares, between Melkbosstrand and Atlantis. [T]he R140 billion project involves 200 000 houses, 415 schools, 370 public service facilities and 15 sports complexes built over the next 10 to 15 years, and the population of this ‘mini city’ is expected to reach 800 000 by 2036” (Yeld 2014). While it proposes significant job creation, mixed-income housing, and a ‘new start’ for its inhabitants, the objections are numerous.



Figure 16. The proposed Wescape, 25 km from the CBD and falling outside the present urban edge. [futurecapetown.com/2014/01/vote-the-wescape-development/#.UtlMys\\_xvIX](http://futurecapetown.com/2014/01/vote-the-wescape-development/#.UtlMys_xvIX).

Firstly, it necessitates the adjustment of the urban edge. Secondly, there is its proximity to Koeberg Nuclear Station. But the most disturbing question is who would carry the cost should the project fail – it could draw essential funds away from existing city projects, and become “... a case of privatising the profits and socialising the risks” (Urban Africa 2013). And if the project fails, those who have been drawn to settle there will again be relegated to the urban edge, and even further from economic opportunities (Davis 2013).

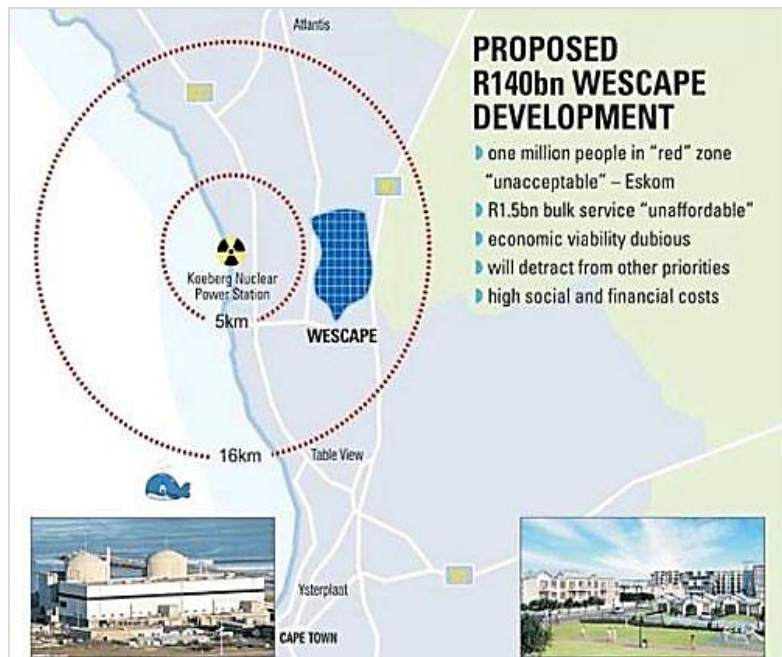


Figure 17. Objections to the proposed Wescape development. [futurecapetown.com/2014/01/vote-the-wescape-development/#.UtlMys\\_xvIX](http://futurecapetown.com/2014/01/vote-the-wescape-development/#.UtlMys_xvIX).

Cape Town, as a 21<sup>st</sup> Century African city, is inspired by concepts such as Sustainability, Resilience, Social Justice, Inclusivity, Creativity, Connectedness, and ‘Smart’-ness. These concepts are inculcated in its city vision (mentioned previously), its policies (see Appendix L), and its projects. And while Cape Town is not a mega city or a world city, it capitalises on its fame as a tourism destination to project itself as forward-thinking, open for business, a profitable haven for investment. There are also plans to step up development around the airport, to create its own regionalised economic zone. And with the envisaged establishment of the controversial Wescape, it might even have its own ‘instant city’. Clearly, Cape Town, while embedded in its historic legacy, is not an island – it is very much part of the global village, and open to influences, trends, movements and ideas.



## 4.4 Transport

The city's unique geographic setting, as well as its colonial design, has resulted in a radial road and rail transport configuration, with all main routes leading to the historical central business district. Add to this the forced removal of black people to the outer edges of the city, new immigrant inflows finding shelter ever further away from the city centre, and the result is that transport costs for people to access economic opportunities are beyond their means. The 2<sup>nd</sup> Wave of Urbanisation which saw a mass of humanity surge into an already segregated city has only deepened the crisis.



**Andrew Dombuleni's Argus cyclist**, made entirely from bottle-tops and strips of soda-can, celebrate the Cape's sporting events. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.

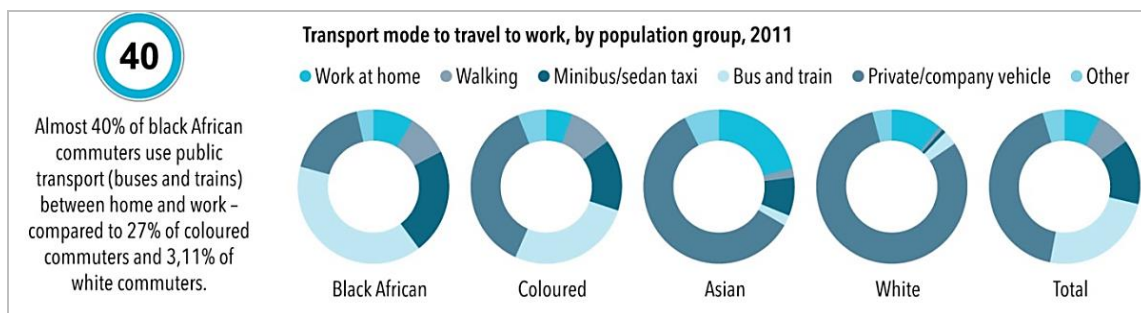


Figure 18. CoCT 2014.

Single-person cars and minibus taxis are presently the main form of transport, ahead of buses and trains. Not only does this cause daily congestion, but it adds to the pollution and greenhouse gases released into the atmosphere over the city. Initially, as car ownership increased, suburban living became possible (de-concentration), but the volume of cars on the road now results in travelling times frequently being an hour or longer, signalling a waste of valuable private time.

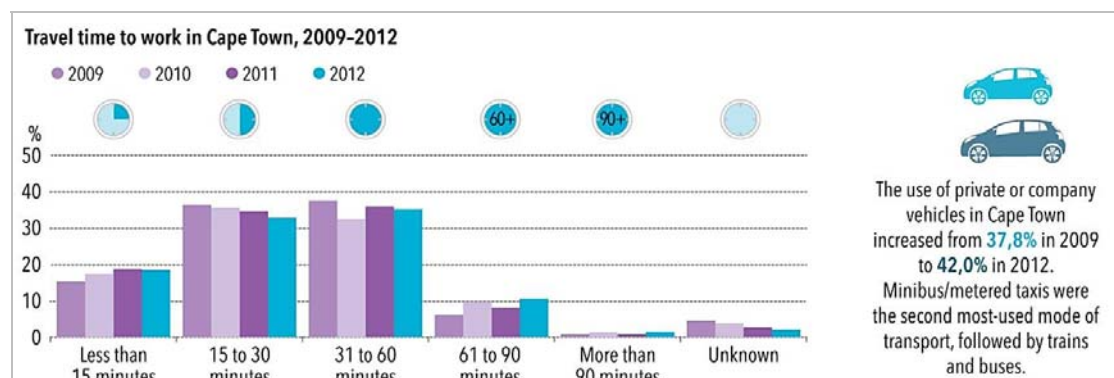


Figure 19. CoCT 2014.

A Transport Development Index (TDI), developed by Transport for Cape Town (TCT) and the first to be developed in Africa, was recently released. The study evaluated the accessibility and related costs of transport to different income groups and users across the city (Appendix D). The TDI identified the access concerns in terms of the direct cost of transport, time (congestion), crime, safety, and flexibility. The Index showed that the majority of the population in the low income group are located in remote areas; meaning those with a monthly household income of R3 200 and less have to travel between 45 km to 70 km every day to get to work opportunities; that the low income group spends on average 45% of their monthly household income on transport, (the international norm is between 5% and 10%); and that 95% of commuters making use of public transport in the city fall within the low and low to medium income groups (CoCT 3 June 2015).

Attempts to address these varied problems include a costly integrated transport system, which would provide cross-radial links, with a flat hop-on-hop-off per day rate; alternatively, and including, taking economic activity to the people by establishing multiple business hubs along main routes, such as Voortrekker and Klipfontein Roads. Figure 20 illustrates the concentration of the metropolitan and sub-metropolitan business nodes.

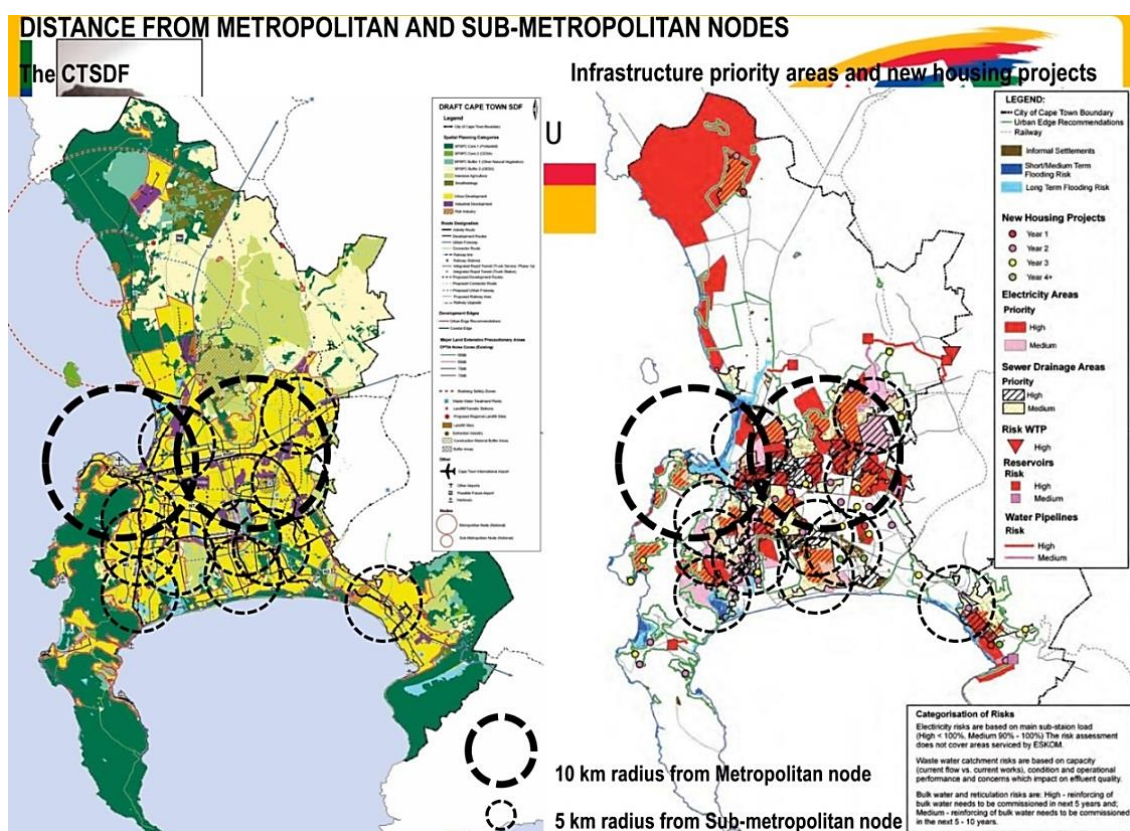


Figure 20. Distances from Metropolitan and sub-Metropolitan Nodes – the nexus of economic life. Cape Town SDF 2012.

Through its MyCiTi bus transport system the City is pushing forwards with its integrated transport plan, determined to use transport as a unifying factor, providing access to the whole city in a seamless system, and providing the same quality of transport to everyone. A few media releases from the City of Cape Town illustrate various points of action:

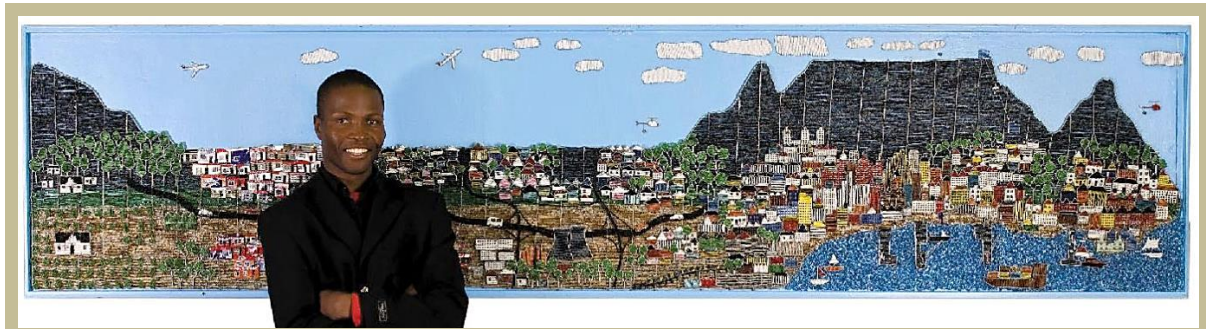
Cape Town central city has introduced green lanes for cyclists, a first in South Africa (CoCT 18 Dec 2012); the City has established a body – Transport for Cape Town – to manage its “one plan, one network, one management system, one contracting authority, one ticket- and timetable system, one unified enforcement system, one fare and one brand” transport system (CoCT 28 August 2013); the City contracted disabled people to audit the accessibility of transport facilities (CoCT 2 December 2013); the City is requiring less parking space in plans in priority areas, to encourage the use of public transport (CoCT 8 June 2014); the announcement and commencement of the cross-radial MyCiTi bus route along the “Lansdowne/Wetton Corridor, which will provide 1.4 million residents from Khayelitsha to Philippi, Nyanga to Gugulethu, Mitchells Plain to Hanover Park, Wynberg and Claremont with a direct, efficient and scheduled public transport service” (CoCT 18 November 2014); and the municipal approval of an Integrated Public Transport Network (IPTN) Operations Plan, for the rail and MyCiTi routes, to cater for the estimated 5.6 million residents by 2032 (CoCT 2 June 2015).



*The MyCiTi system installed and operative in the Atlantis/Tableview area.  
Bruce Sutherland, City of Cape Town.*



## 4.5 Housing and Services



This cityscape by **Abraham Tapera** captures the fragmented residential spaces in the city (some high-density, some spacious), the city's urban edge, and its modernist urban form of separate areas for work and living. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.

### Housing and basic service delivery

Housing and basic service delivery is one of the most contentious issues in South Africa and in Cape Town. The City has programmes in place: to upgrade informal settlements (CoCT 25 Nov 2013); to install water and sanitation to informal settlements (CoCT 2014); to implement a unique delivery of basic services to backyard-dwellings for a more fair and direct provision (CoCT 1 April 2014) – for example, the extensive Hanover Park backyard-dwelling programme, voted a World Design Capital 2014 project by transforming lives through design (CoCT 2 Oct 2014). Nevertheless Housing and Basic Service Delivery remains a wicked problem.



Backyard dwellings in residential properties. CoCT.

As migration into the city increased - from the Eastern Cape, other parts of the country, and other countries on the African continent, the population swelled from 1996 to 2011 by 45.9%. With an already existing backlog in housing delivery, households living in informal settlements (there are now 376) have increased. Seizing opportunity, many formal residences have allowed informal dwellings (Wendy-houses, shacks) to be built in their backyards (CoCT 2014, State of the City), and charge (often stiff) fees for the use of water, sanitation and energy.

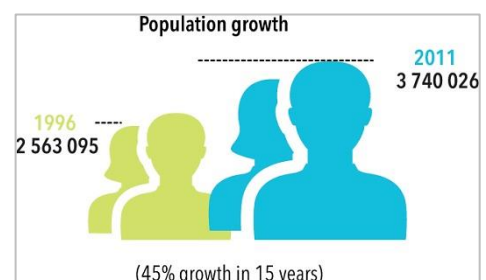


Figure 21. Population growth. CoCT 2014.

Housing and services cannot be rolled out fast enough. It is a fertile arena for corruption; the issues are seized upon for political contestation and protest - during which time the needy areas are unsafe, the lives of city officials and service companies are endangered and services cannot be delivered; and a flare-up of xenophobic violence occurs when the presence of large groups of foreign African nationals begins to encroach too forcefully on the perceived fairness of the system and ability for South Africans to improve their own lives.

The IDP of 2011 paints a desperate picture of housing need:

Currently, almost half of Cape Town's households are sheltered in inadequate dwellings and informal settlements. Approximately 400 000 families have expressed a need for formal housing opportunities by placing their names on the City's housing database. This backlog is further aggravated by a consistent annual growth in housing demand of approximately 17 000 dwellings, either from new family formation or in-migration.

Cape Town 5-year IDP 2011: 26.

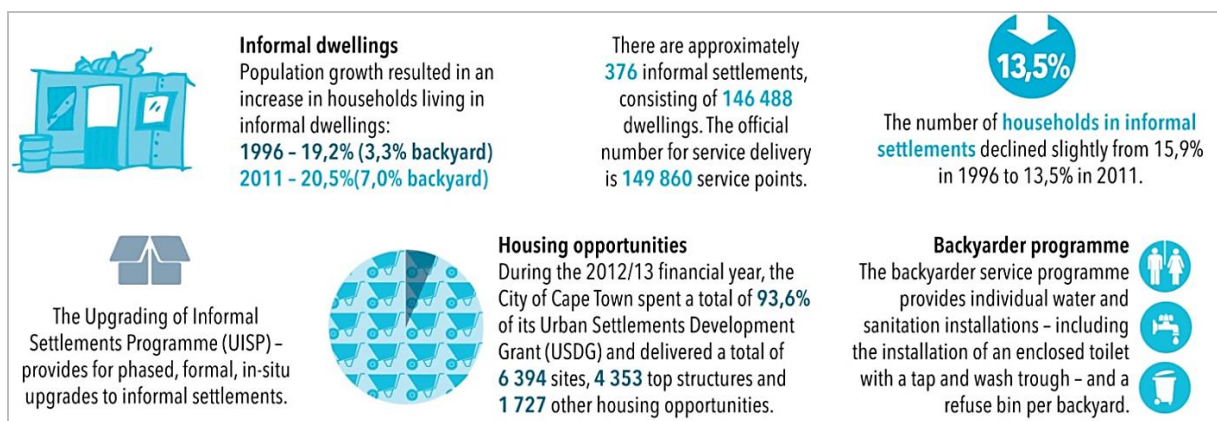


Figure 22. CoCT 2014.

Since the demise of Apartheid, housing and basic services have become an expected human right, and it is incumbent upon local government to provide the Universal Access model of service delivery, through cross-subsidisation from the wealthy to the poor - with possibly lingering feelings of resentment on the part of the former, and outrage should their own services be disrupted. The housing provision, which rarely reflects high-density buildings, can be critiqued because it adds to single level urban sprawl (Charlton and Kihato 2006).

Service delivery of water, sanitation, energy and waste removal since 1996, according to the City, has consistently improved, until it has very nearly reached the 100% mark. Piped water inside the dwelling is just below 80%, with a further 15% inside the yard. The drinking water is of exceptional quality, complying 98% with DWA Blue Drop standards (2012). These figures apply to formal housing (CoCT 2014).

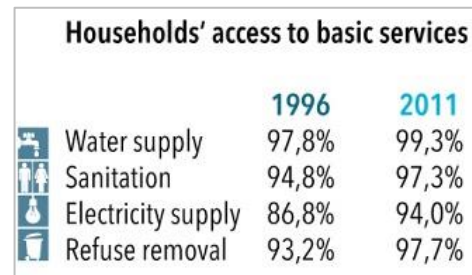


Figure 23. CoCT 2014.

The 2011 Census pinned Cape Town's population at just over 3.7 million. Those living in informal settlements were measured at just over 752 000, of which 7 percent were backyard dwellers. Over the 10 years to 2011, there was an increase from 29.9 percent to 38.2 percent of female-headed households. The population breakdown has been calculated as follows, see Table 15 (National Census 2011).

**Table 15. Population Groups, Cape Town.**  
National Census 2011.

Population group	% Increase over 10 years – 2001-2011	% of total population (2011)
Black African	58	39
Coloured	14	43
Indian/Asian	25	1.4
White	8	16
<b>TOTAL</b>	<b>26.8</b>	<b>100.0</b>

Where people are desperate for living space, land invasions have been attempted (often backed by opposing political parties). The police units who have to clear the land are not known for soft handling, and accusations of police brutality are levelled. Inasmuch as the City would like to establish an Inclusive City, and a Caring City, the issue of housing and basic services is an ongoing running battlefield for existence, with many players and many perspectives. Policies and programs might be meant to indicate the City's overall benign approach, but on the ground a very different reality plays out. To remind oneself of Heinrich Wolff's words mentioned in Chapter 1: "To many people living in Cape Town, this is a horrible city" (Wolff 2015). The City's survey of Customer Satisfaction does, however, indicate an improved perception of service delivery, although it is significant that the rating is still higher for businesses than for residents.



Figure 24. CoCT 2014.

Upgrading informal settlements face many other challenges. A visionary 2009 plan for simultaneously addressing the shelter, social and environmental problems in Kosovo, Philippi, could not materialise owing to a series of financial, institutional and technical obstacles. Having based the



plans firmly on the full understanding of sustainability, this was severely disappointing to the planners (Goven 2010). Two pieces of public finance accounting - the Public Finance Management Act (PFMA) and the Municipal Finance Management Act (MFMA) - hold the Head of a Department (in national or provincial government) and the City Manager (in a municipality) personally responsible for over- or fruitless expenditure, which understandably creates risk-averse responses (Pieterse 2009).

Appendix E provides a cameo of city housing and service delivery initiatives, citizen action, and contests, sourced from City of Cape Town and other media releases. It reflects consistent activity on the part of the City to bring redress to disadvantages peoples. They have a number of programmes in operation – the Mayoral Urban Regeneration Programme and a National Treasury Integrated City Development Grant, which is used for the Community Residential Units (CRU) Refurbishment Programme; and they allocate millions of rands towards Universal Access – bringing basic services to the people (Appendix E).



*A collage of media photographs around housing and service delivery issues from 2012 – 2015. CoCT.*



The City is rolling out thousands of title deeds to properties in a number of areas; new RDP houses are automatically fitted with solar panels; neighbourhoods are being upgraded to be safer through the VPUU programme (Appendix E); and informal settlements are systematically being re-blocked. A number of new low-cost and gap housing developments are already in process, with more on the drawing board. On the other hand, land invasions are becoming more frequent, the rights of different disenfranchised groups collide, and even while progress seems to be made (such as the N2 housing project), it often spells disruption for those it is meant to benefit. Protests and running battles are familiar news to Capetonians, and political opportunism is rife (Appendix E).

This may be the targeted course of action for citizen groups and opposition political parties, to ensure concerted City programmes of redress. At a 2010 DAG National Conference, entitled *Re-Imagining the City: A New Urban Order*, speakers urged for an altered power relationship between the state, the market, and citizenry. Urban policies, they said, mostly pander to the demands of the market and the state's exclusionary strategies. The shift should start with the recognition of the social-political value of land, and attempts towards gaining social control of state policies and implementation, needs to be undergirded by social grassroots mobilisation (DAG 2010).

Re-imagining the city to create a new urban order would outrage many of those who enjoy privileged access to the city, thus extending the struggle into the realm of social justice and equity. It is important that urban reform be accompanied by a struggle for other social rights - including social control over urban and social public policies.

Murad, as quoted by DAG 2010.

This reflects again on the delicate balance between the 'new revolutionary energy' of designers, with attitudes of 'modesty, careful conservations, creativity and service' (Latour 2008), and the 'creative destruction' revolutionary forces of violence and anger. Could Design and designers become instrumental in championing social justice and equity?

## 4.6 Social Services

### Health care and recreational facilities

Through its various departments, the City is exceptionally active in bringing social, educational, health and recreational services closer to its citizens: residents have access to 137 health care facilities (offering primary health care, maternal and child health services and preventive programmes); 446 sports and recreational amenities, as well as 165 community centres, 36 swimming pools, 3348 community parks, and 5400 public open spaces.



*Joe Maphuno comfortably blends with his sculpture of Everyday Life and Citizenry. CCDI 2007 exhibition: wire+plus [this is my Cape Town].*

Various campaigns are run, such as the City's substance abuse awareness campaign, launched by Mayor De Lille on 19 March 2014. "Cape Town has a substance abuse problem and it affects every single resident and business, not just those who use drugs. It is arguably the most serious challenge we currently face as a city", she said (CoCT 19 Mar 2014). On 1 October 2014, the International Day of Older Persons, she also launched the campaign: 'Leaving No One Behind: Promoting a Society for All', "The City of Cape Town is committed to building an inclusive city that provides recreational spaces catering for residents across communities and all age groups. More than 15 000 senior citizens over the age of 80 years are members of the City's libraries and our recreational programmes are attracting an ever-increasing numbers of older persons", said the Mayor (CoCT 30 Sep 2014).



*Line-dancing at a community hall (CoCT 2014).*

Within its ambit of responsibility, the City has launched the Mass participation; Opportunity and access; Development and growth (MOD) Programme (after school hours) for young people through youth centers, with educational and recreational activities, with the purpose of building skills, self-

confidence and achievement. The Early Childhood Development (ECD) programme is also expanding to invest in the very young children.

During World Design Capital 2014, in particular, the City devoted budget and time towards upgrading urban neighbourhood parks. However, the upgrading of public spaces is an ongoing project, with a dedicated budget. “Through the urban public space programme, we are changing lives through design” (CoCT 8 Oct 2014).

The City of Cape Town has invested more than R250 million in 68 public spaces over the years, in an effort to create innovative and inclusive community-friendly areas for the residents of Cape Town. The city's previously disadvantaged communities have been the recipients of the majority of this investment. These range from the formal civic spaces in the inner city, such as the Grand Parade and Greenmarket Square, to local urban node upgrades such as in Mfuleni, Lentegeur and Observatory, successful upgrades to Nantes Park, the Valhalla Family Recreational Park, and the Sea Point Promenade, and the now famous Mill Street Skate Park, in Gardens. A further R35 million has been earmarked for the public urban space programme in the next two years. This will include the commencement of projects such as the upgrades to the Pavilion Precinct in Strand, the Pampoenkraal heritage site in Durbanville, and the Langa Station southern forecourt (CoCT 8 Oct 2014).



*City Parks work with communities to upgrade their parks.*  
[http://www.capetown.gov.za/en/IDP/Documents/CCT\\_IDP\\_prf82013.pdf](http://www.capetown.gov.za/en/IDP/Documents/CCT_IDP_prf82013.pdf)



*Mill Street Skate Park, Gardens.*  
*Green space, Tygerberg.*  
*City of Cape Town.*

## Food security and mortality

The statistics for food security and infant mortality have improved, but are still not satisfactory. In 2012 only 58 per cent of children and 60 per cent of adults enjoyed food security. Infant mortality from HIV/Aids had dropped up until 2010, but again picked up from sicknesses associated with life in informal settlements, such as diarrhoea and pneumonia.

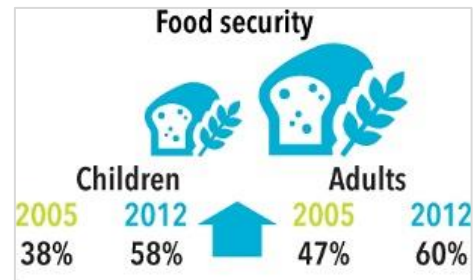


Figure 25. CoCT 2014.

Deaths for all citizens were largely attributable to cardiovascular and metabolic diseases (tuberculosis), infectious diseases (HIV/Aids) and cancers, but Other Causes also refer to the murder rate in Cape Town – 51 per 100 000 inhabitants, which is distressingly higher than the country average of 31 per 100 000 – and directly linked to gangsterism and drug-related crime – 1 500 incidences per 100 000 inhabitants, as against about 400 per 100 000 for the whole country.

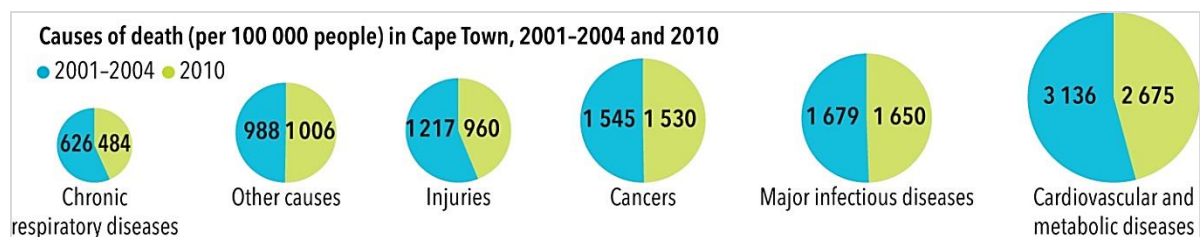


Figure 26. CoCT 2014.

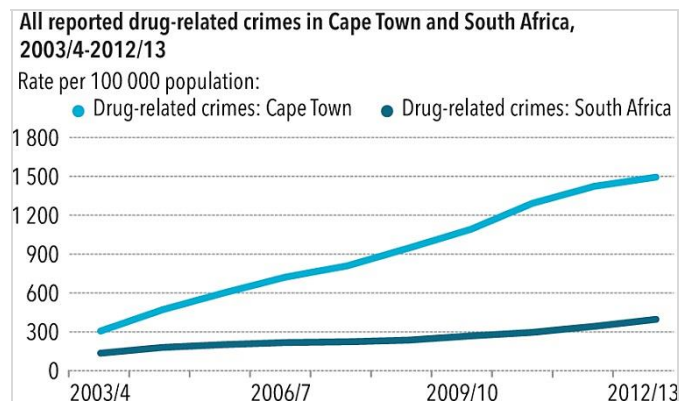
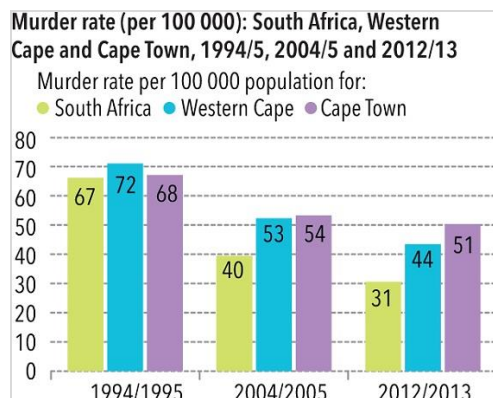


Figure 27 and Figure 28. CoCT 2014.

## Homeless people

The City has stepped up to the challenge of homeless people. In a first such survey by any municipality in South Africa, 7 383 street people were counted in the City of Cape Town. The City has put nearly R10 million in this financial year towards their rehabilitation and reintegration into society – nearly doubling the budget from last year. An additional R2 million is earmarked for employment through the EPWP. The Street People Programme aims to help people who want to get off the



streets; prevent others from moving to the streets; and encourage the public to give through the Give Responsibly campaign, so that services to the homeless are supported, rather than putting money in their hands, which could perpetuate substance-abuse (CoCT 6 Aug 2015).



Fieldworkers encountered 4 862 people sleeping on the street, while 2 521 slept in shelters. 63 Percent of those sleeping on the street preferred to sleep on the open pavement rather than under bridges, in parking lots, outside malls or other spaces. 79 Percent of street people are male and 21 percent female. Nearly three-quarters of them are between the ages of 26 and 45 (CoCT 6 Aug 2015).

## 4.7 Economy

Cape Town is the toast of international tourists and tourism writers. Lauded year after year for its natural beauty, its outstanding cuisine, its winelands, seaside hotels and restaurants, beaches and local art and craft scene (Telegraph 2013, 2014, Whale Cottage 2015, CoCT 12 Jan 2013, Cape Times 2004) (see Appendix F), it is famous as “a lifestyle destination - home to cutting-edge design (and designers), architectural innovation, a unique range of experiences (shopping, tours, activities, nightlife, restaurants) as well as cultural diversity and a wealth of world-class accommodation” (RSA 2011).



**Takunda Gochera** with the *Tree of Opportunity*. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.

According to its media releases, the City has also received a constellation of accolades (Appendix G) because of its financial stability (a Moody Aa3), persistent clean audits, outstanding delivery of services, energy-saving lighting, community housing project delivery, its innovative Geographic Information System, public transport system, MyCiTi rollout, waste management, and waste recycling (CoCT 9 Jun 2015, 2 Oct 2014, 14 May 2014, 27 Feb 2014, 11 Feb 2014, 19 Sep 2013, 27 Aug 2013, 18 Feb 2013, 28 Jan 2013, 18 Dec 2012).

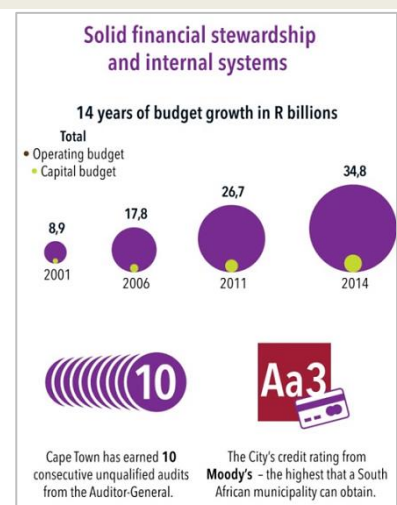


Figure 29. CoCT 2014.

Cape Town's leading economic sectors contributing to GDP are Finance, Insurance and Business Services, followed by Manufacturing, and Wholesale, Retail and Accommodation. The financial services sector is also the fastest growing sector - more than 55 percent of the growth of GVA (general value added), according to the City's 2010 Draft Analysis report for Spatial Economy. The services sector, says the report, "can afford high property rentals and salaries, and tend to group in large commercial centres in high-rise buildings" (CoCT, Spatial Economy 2010).

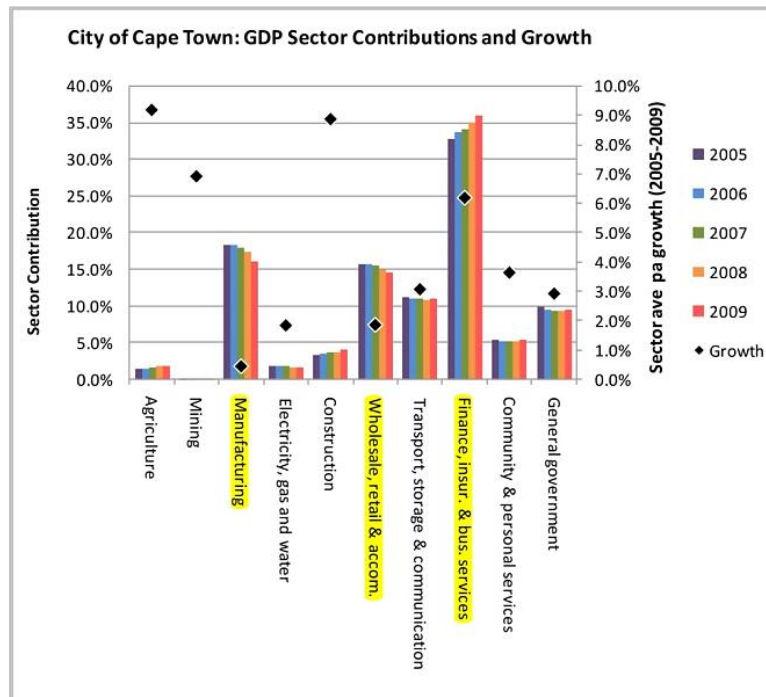


Figure 30. GDP sectoral contributions and growth. Quantec Data.

### Investment in Green Economy and suburb/township retail centres

To encourage a more distributed spread of economic activity in the city, various incentive schemes and significant investments in Atlantis have been announced, particularly in the manufacturing and green economy sectors (wind towers, televisions, electronics) (CoCT 18 Jun 2014, 1 Apr 2014), and huge investments are being made by City and private sector partnerships in suburb/township shopping centres, such as the Mitchells Plain Town Centre, just over R1 billion over 10 years

(CoCT 13 Apr 2014). The City has similarly pursued a programme of developing 'Dignified Spaces', township or suburban business plazas to encourage and provide for informal traders and small

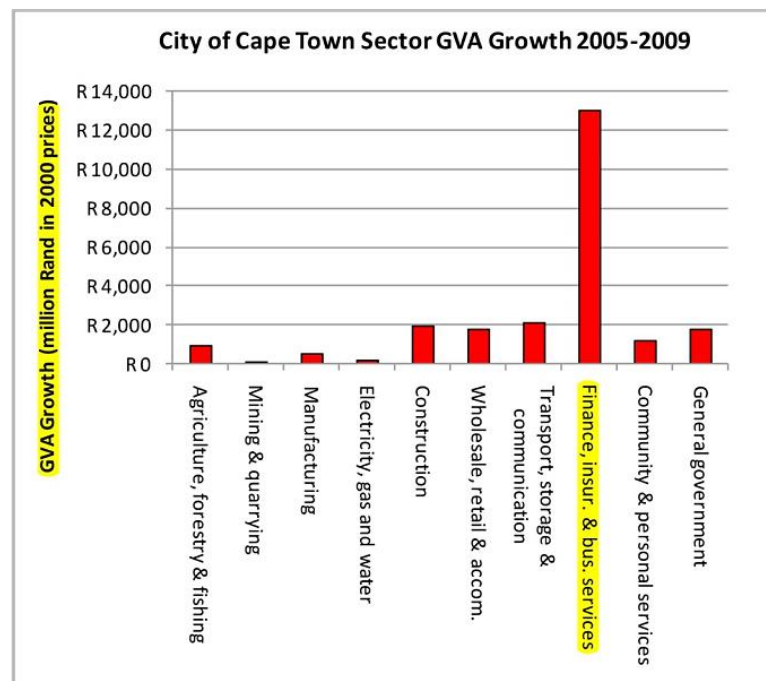


Figure 31. Growth by economic sector. Quantec Data.

businesses (CoCT 2003). In February 2013 it was announced that parts of Bellville, Parow and Maitland had been included into its Urban Development Zone (UDZ), making it possible for the City to support the Voortrekker Road Corridor Urban Regeneration Area (CoCT 22 Feb 2013).

### Broadband access and mobile telephony

The City has launched a broadband infrastructure roll-out to 'bridge the digital divide' to less-advantaged communities – in 2011 less than 50 percent of households had internet access. In the meantime, mobile telephony has been rapidly adopted by all Capetonians; 83 percent of black Africans in Cape Town use cellphones as their only means of telecommunication.

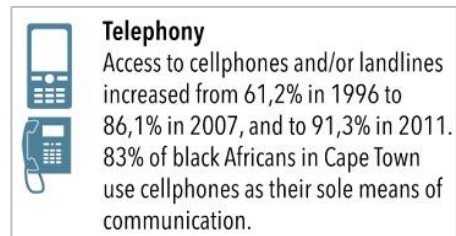


Figure 32. CoCT 2014.

The City's Universal Broadband Network rollout, which so far has saved the City R117 million, and has significantly increased efficiency by connecting with 43 government buildings and 141 City buildings, including public hospitals, police stations, and tertiary institutions, is now being rolled out by eight third-party service providers to bring sustainable Wi-Fi access to under-served areas and communities (CoCT 16 Apr 2014).

These investments are reaping their own dividends. Cape Town echoes the GDP annual growth rates for South Africa, but is higher by 1 percent for 2010 to 2012. Cape Town's GDP per capita (R58 844) compared favourably to the average of the other metros (R55 167), as well as to the South African per capita GDP (R37 404).

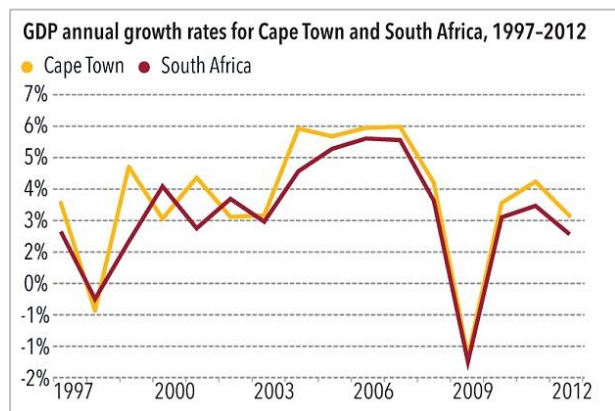


Figure 33. CoCT 2014.

Cape Town's contribution to country GDP of 11.3 percent was second only to Johannesburg at 16.7 percent. The cumulative growth of the Cape Town economy from 1996 to 2012 has been calculated at 78 percent, compared to South Africa's 65 percent.

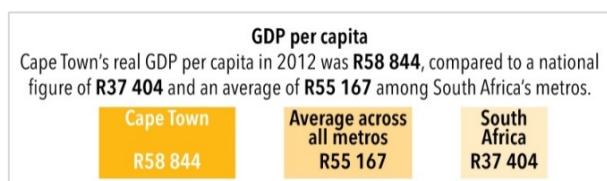


Figure 34. CoCT 2014.



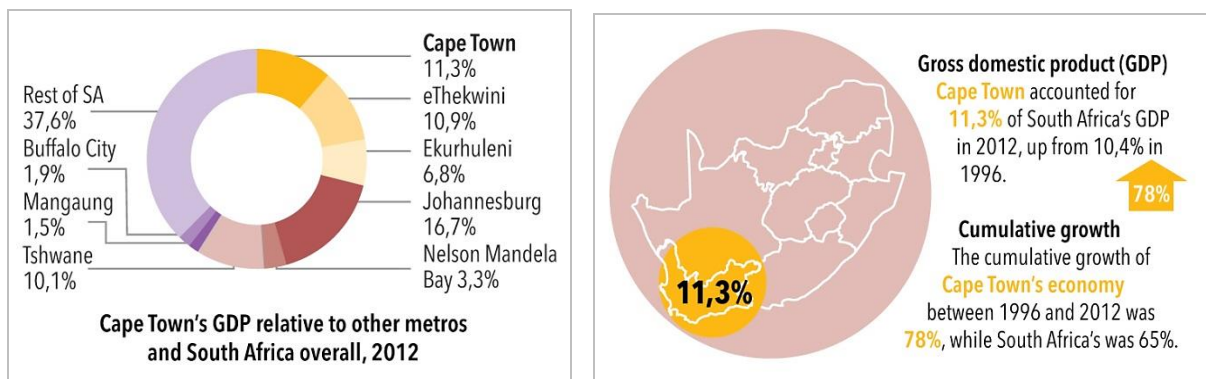


Figure 35 and Figure 36. CoCT 2014.

Cape Town's competitive advantage – as compared to the rest of the country - lies in the sectors of fishing, clothing and textiles, wood product manufacturing, electronics, furniture, hospitality, financial systems and call centres.

Figure 37. CoCT 2014.



Cape Town's huge investment in economic performance makes it possible for the City to provide a higher degree of services to its citizens, even while they are protesting. In a very recent survey it was found that, despite the severe burden that power outages was putting on municipalities, the Western Cape was able to provide top-up free electricity units to 45 percent of its constituency, considerably more than the next closest province, the Eastern Cape at 26 percent.

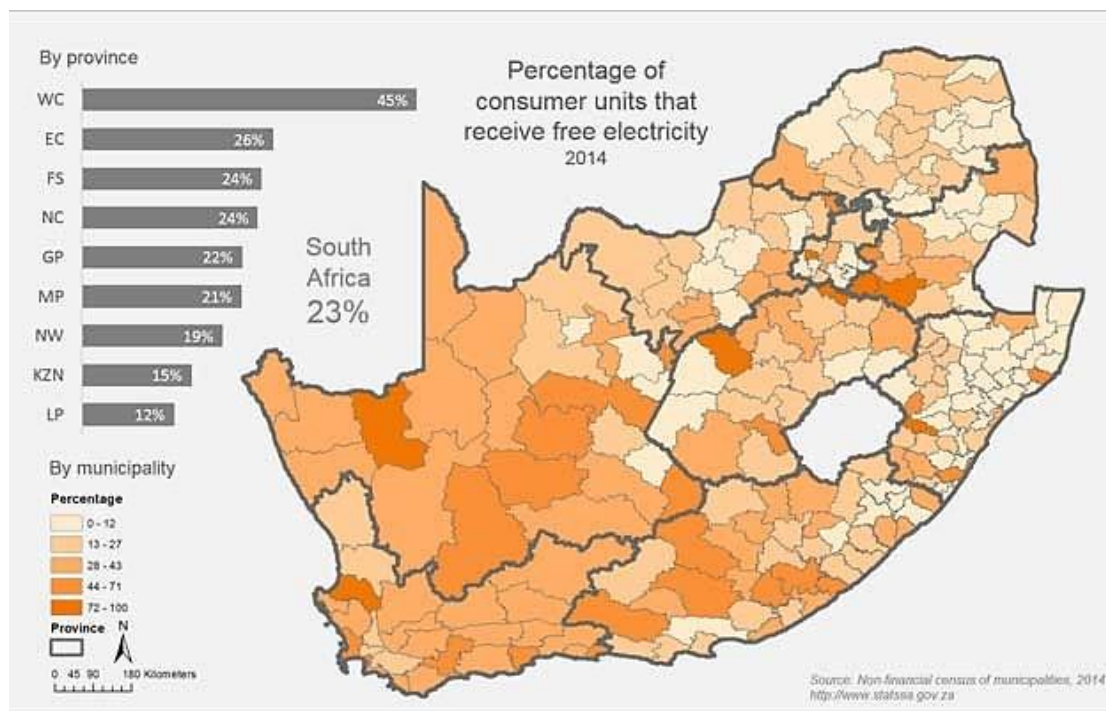
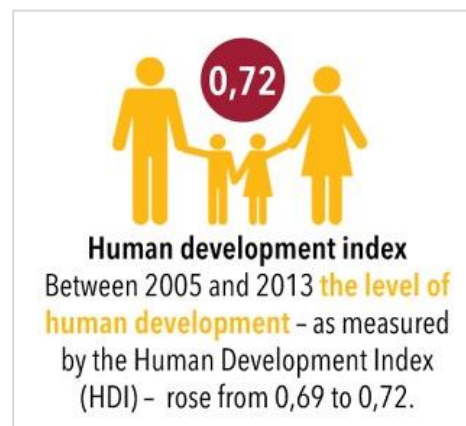


Figure 38. Fin24, 10 September 2015.

The Gini Coefficient<sup>10</sup> and the Human Development Index<sup>11</sup> provide snapshot summaries of the city. The Gini Coefficient at present stands at .67, a sign of grave inequality, while the HDI has risen to .72, an indication of 'high' human development.

Figure 39 and Figure 40. CoCT 2014.



The Human Development Report 2014 of the United Nations Development Programme provides the following country information, positioning the countries out of 187 countries and territories (UNDP 2014). The City of Cape Town is close to 100th on the list, with its HDI of 0.72 (ranking it as HIGH), while the average for South Africa is 0.629, at 121th place on the list (ranking it as MEDIUM). Countries of previous WDC cities, rank as follows: Korea (Seoul) 12<sup>th</sup>; Finland (Helsinki) 24<sup>th</sup>, and Italy (Turino) at 26<sup>th</sup> place on the list.

**Table 16. Country Human Development Index rankings**

HDI Rank	Country	HDI Value 2013	Positioning	Comparative for...
1	Norway	0.944	Very high	
12	Korea (Seoul)	0.909	Very high	World Design Capital 2010
17	Japan	0.890	Very high	
18	Lichtenstein	0.889	Very high	
19	Israel	0.888	Very high	
20	France	0.884	Very high	
24	Finland (Helsinki)	0.879	Very high	World Design Capital 2012
26	Italy (Torino)	0.872	Very high	World Design Capital 2008
57	Russia	0.778	High	BRICS
79	Brazil	0.744	High	BRICS
	City of Cape Town	0.72	High	World Design Capital 2014
101	China	0.699	Medium	BRICS
121	South Africa	0.629	Medium	BRICS
136	India	0.554	Medium	BRICS

[hdr.undp.org/en/content/human-development-index-hdi](http://hdr.undp.org/en/content/human-development-index-hdi)

<sup>10</sup> The Gini Coefficient is a measure of statistical dispersion intended to represent the income distribution of a nation's residents, and is the most commonly used measure of inequality.

<sup>11</sup> The Human Development Index is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy. Access to knowledge is measured by: i) mean years of education among the adult population, which is the average number of years of education received in a life-time by people aged 25 years and older; and ii) expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life. Standard of living is measured by Gross National Income (GNI) per capita expressed in constant 2011 international dollars converted using purchasing power parity (PPP) rates. (UNDP: HDR).

Although international tourism contributes significantly to the economy, City management is also focussing on local tourism as a lever towards social cohesion and an inclusive economy. To this end, city building assets have been upgraded (the City Hall, the Grand Parade, the Good Hope Centre and the Athlone Stadium) (CoCT 25 Mar 2014), and an emphasis is being placed on expanding the city's role as an Events Capital (CoCT 26 Aug 2013). There were 645 events held in Cape Town in 2014; just two of those, the Design Indaba and the Cape Town International Jazz Festival, contributing R385 million and R555 million to GDP respectively (CCID 2014).



Figure 41. CoCT 2014.

Announcing the City's draft Arts and Culture Policy on 26 August 2013, the City declared:

Arts and Culture has an important role to play in stimulating Cape Town's tourism and events industries, which together with related service industries, account for 17% of economic activity in the Western Cape. The policy aims to position Cape Town as the country's centre of inclusive creative excellence by promoting public art, carnivals, memorials, opportunities for inter-cultural dialogue towards greater social cohesion, national celebration and community cultural development. Audience development, a cultural events calendar, and a creative industries growth strategy all form part of the policy.

CoCT 26 Aug 2013.

Between 2009 and 2013, domestic arrivals to Cape Town were up by 65%, contributing an estimated R1.9 billion to local coffers in 2013 (CoCT 1 May 2014).

**Table 17. Foreign and Domestic Tourism Spend in Cape Town**

	Source	2009	Preliminary 2013
<b>Foreign Direct Spend (excluding capital expenditure)</b>			
Total foreign direct spend in <b>South Africa</b>	SA Tourism	R59,2 billion	R74,2 billion
Share of foreign direct spend in the <b>Western Cape</b>	SA Tourism	28%	23,8%
Total foreign direct spend in the <b>Western Cape</b>	SA Tourism	R16,6 billion	R17,7 billion
Share of foreign direct spend in <b>Cape Town</b>	Estimate	68%	70%
Total foreign direct spend in <b>Cape Town</b>	Calculation	R11,3 billion	R12,4 billion
<b>Domestic Spend</b>			
Total spend by domestic tourists in <b>South Africa</b>	SA Tourism	R22,4 billion	R22,5 billion
Share of total domestic spend in the <b>Western Cape</b>	Calculation	11,6%	17,9%
Total spend by domestic tourists in the <b>Western Cape</b>	SA Tourism	R2,6 billion	R4 billion
Share of domestic spend in <b>Cape Town</b>	Estimate	44%	47%
Total spend by domestic tourists in <b>Cape Town</b>	Calculation	R1,1 billion	R1,9 billion
<b>Direct Tourism Spend – Cape Town</b>			
Total foreign direct spend in Cape Town	Calculation	R11,3 billion	R12,4 billion
Total spend by domestic tourists in Cape Town	Calculation	R1,1 billion	R1,9 billion
<b>Total direct tourism spend in Cape Town</b>	<b>Calculation</b>	<b>R12,4 billion</b>	<b>R14,3 billion</b>

City of Cape Town and Grant Thornton 10 Oct 2013.

## 4.8 Employment

### Opportunities

A fast-growing population does not necessarily go hand in hand with the creation of employment. Cape Town's population outpaced employment growth between 2005 and 2013, so that the current unemployment stands at 24.9%, with only 238 915 jobs having been created (CoCT 2014).

**Jeff Mwhaza** with his larger-than-life sculpture of Madiba, stepping ashore in Cape Town from Robben Island, presenting the values of Democracy. CCDI 2007 exhibition: wire+plus [this is my Cape Town].



Thousands of matriculants are frustrated in their search for work, and the merits of a higher education, while vigorously promoted by government, are doubted. Matriculants as a percentage of the total population in Cape Town rose from 19.6 to 30.2 percent from 1996 to 2011, while those with a higher education increased from 10.9 to 16.2 percent between those same years (CoCT 2014). That leaves more than half of the population with an education that could not secure them the kind of wages that could improve the quality of their lives and ensure a good education for their children.

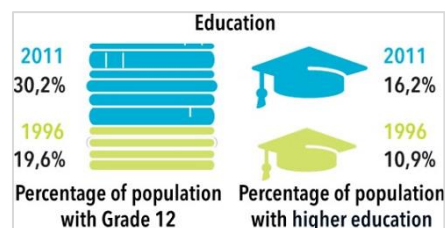


Figure 42. CoCT 2014,

### Informal sector and short-term work

When growth in the labour force outpaces job opportunities, the informal sector becomes the sponge to absorb the excess; in Cape Town 8.7% of total employment is absorbed by informal work (CoCT 2014). This sector has not always been received and treated well, particularly in the central city; however, increasingly, they are being recognised as valid and worthy of support, within certain regulatory parameters.

Figure 43. CoCT 2014.





Since 2011, the City has spent over R22 million on its Expanded Public Works Programme (EPWP), creating short-term jobs and skilling more than 100 000 unemployed people (CoCT 27 May 2014). The City is acknowledged as the best metro for EPWP projects in the country (CoCT 16 Sep 2014).



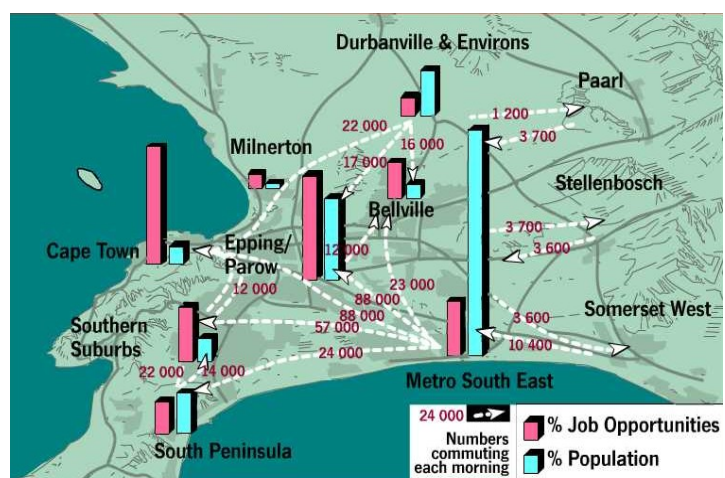
“At a sitting of the City Council, it was recommended that the Draft Informal Trading Policy 2013 be adopted and the previous Informal Trading Policy 2004, be repealed; and the proposed amendments to the Informal Trading By-law 2009, be recommended for adoption. The current policy (2004) suggests that traders should ideally move from trading on the street to trading in markets and eventually as formal businesses. The draft policy (2013) differs in that it is not deterministic about the route that informal traders should pursue and acknowledges that informal trading is neither a nuisance nor a phenomenon that should be cleaned up or eliminated. Instead it is supportive of informal traders who choose to make a living in such a manner. It also implies that regulations should be progressive and match the location, the goods/services, and the trader in support of their choice – while considering the impact of the choice of livelihood on other stakeholders” (CoCT 27 Sep 2013).

*Informal street traders at Wynberg taxi rank, Cape Town.  
futurecapetown.com*

*Workers in the Expanded Public Works Programme.  
City of Cape Town.*

## Formal employment sector

In the formal sector, the economic activity is not distributed evenly across the city; rather it is concentrated in nodes. Investment follows this pattern, as do the higher property values. Cape Town's CBD records more than double the turnover than the next most important node, the Bellville-Tygerberg area. Between the CBD and the South-Eastern part of the city, work opportunities and income



*Figure 44. Cape Town Job Opportunities and Population Spread.  
City of Cape Town SDF 2012.*

are inverse to the labour force resident in those areas – about one third of the city’s population lives in Khayelitsha, Mitchells Plain and the surrounding suburbs, but job opportunities do not match the labour supply (Stats SA 2009). This emphasises the critical need for an efficient and seamless transport system criss-crossing the city from home to workplace, and between economic nodes, rather than its present radial format.

Employment between economic sectors shows that manufacturing, wholesale and retail account for a larger percentage of employment, although the services sector (community and personal services, and finance, insurance and business services) are catching up. The City’s emphasis on developing the knowledge economy would contribute to this group, and shift the economy towards a more sustainable profile.

The Spatial Development Framework suggests that investment and employment opportunities should be shifted to the South-East part of the city, where there is a sizable labour force, that

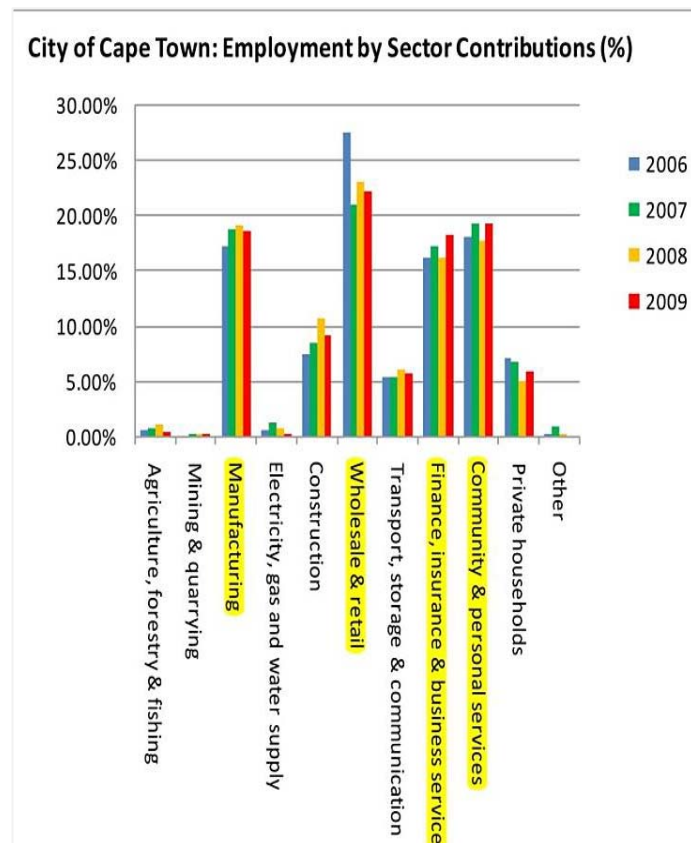


Figure 45. Sector Employment contributions. Quantec Data.

is, the areas close to the newly upgraded airport, the N2 and the R300. Manufacturing, logistics and warehousing are shifting to cheaper premises on the periphery of the city, where vacant land is being rezoned and developed. And shopping malls have recently been developed and upgraded, such as the Khayelitsha, Gugulethu, and the Liberty Promenade Mall in Mitchells Plain, to access disposable income towards the retail, repair and the services sector (CoCT SDF 2012, CoCT 13 Apr 2014).

### Gangsterism related to unemployment

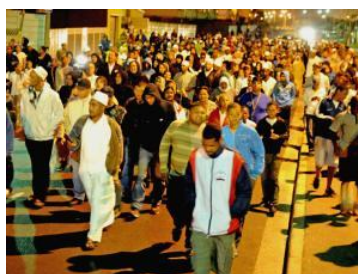
The Cape Flats particularly is the terrain for gangs, dealing in drug and arms, and engaged in territorial wars. In Manenberg, a suburb created for Coloured citizens who were forcibly removed from the city centre during the Apartheid years, gang wars, run-ins with the police, violent deaths, and hardened criminals is commonplace; young people from dysfunctional homes join gangs for a



sense of belonging, and for a source of income. Schools often need police protection so that education can continue. Anti-gang movements, such as People Against Gangsterism And Drugs (PAGAD) have been known to engage in acts of citizen justice. (Davis 2013).



*Rashaad Staggie, August 1996. Photo Bennie Gool.*



*PAGAD on the march – 2011.*



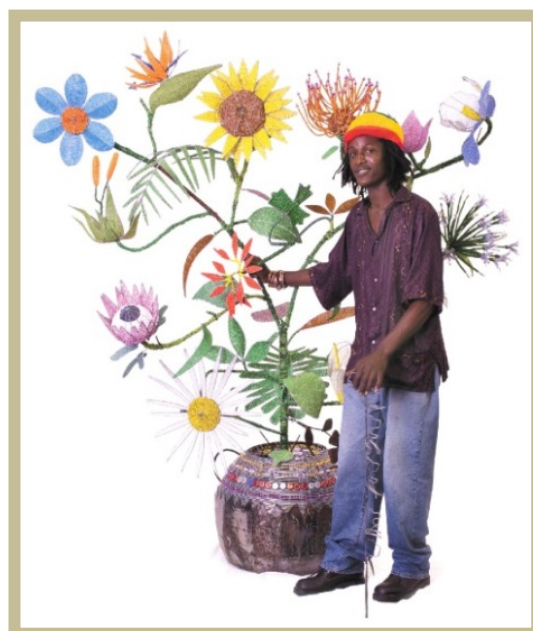
*Rashied Staggie. gang boss. Photo: Terry Shean.*

## 4.9 Environment

An examination of the ecological footprint of the City of Cape Town reflects that -

... the Cape Metropolitan Area's ecological footprint is about 128 300 km<sup>2</sup> which means that it depends upon an area of the earth's surface nearly equal to that of the whole of the W. Cape Province (129 370 km<sup>2</sup>) for the supply of its resources and the absorption of its wastes. Its ecological footprint is 52 times larger than its jurisdictional area and 166 times the area of its built footprint. Its per capita ecological footprint is 4,28 ha - .... significantly larger than the 1,9 ha of biologically productive land available per person globally in 1999 (WWF, 2002: 4, 24, 32).

Gasson 2002.



*Luke Gwatidzo's spectacular sculpture reflected the richness of the Cape Floral Kingdom. CCDI 2007 exhibition: wire+plus [this is my Cape Town].*

This sobering information, read in conjunction with a breakdown of the ecological footprint per socio-economic group reveals a totally skewed use of natural resources across the metropolitan. 'Silver Spoons' use 14.8 planets' worth of resources, compared to the lower income groups, which understandably only use one planet, or probably much less than the 1.9 ha which is their due. (It must be remembered that, as the earth's resources are plundered, and as the population continues to grow, this per capita share diminishes).

**Table 18. Cape Town's ecological footprint by socio-economic group**

Cluster group	Key characteristics	% of total households in Cape Town	Planets required before/after eco-efficiency	
			<i>before</i>	<i>after</i>
<b>Silver Spoons</b>	elite, largest consumers, getting richer	<b>7</b>	<b>14.8</b>	<b>2 - 3.8</b>
<b>Upper Middle Class</b>	established, mature, conservative, professionals, gated	<b>9</b>	<b>5.8</b>	<b>2</b>
<b>Middle Suburbia</b>	tight budgets, mid-level jobs, bargain hunters, big spending on educating children	<b>10</b>	<b>4.7 – 5.2</b>	<b>1.7</b>
<b>Community Nests</b>	mixed, Afro-cosmo, shifting, small spaces, stylish, café culture, dense	<b>2</b>	<b>2.4 – 2.7</b>	<b>1.1</b>
<b>Labour Pool</b>	high density family neighbourhoods, stable jobs, secondary education, struggling	<b>6</b>	<b>1.5</b>	<b>1</b>
<b>New Bonds</b>	new SA families, youngish, targets of the developers	<b>13</b>	<b>1 - 2</b>	<b>1</b>
<b>Township Living</b>	old places, few jobs, youth cultures, soul of the new SA, buzzy, vulnerable	<b>11</b>	<b>1</b>	<b>1</b>
<b>Towering Density</b>	teetering, high hopes, few options, the educated leave as soon as possible, limited reinvestment	<b>22</b>	<b>1</b>	<b>1</b>
<b>Dire Straits</b>	old places, overcrowded, services collapsing, high unemployment, decaying	<b>3</b>	<b>1</b>	<b>1</b>
<b>Below the breadline</b>	shack settlements, desperation, insecurity	<b>15</b>	<b>1</b>	<b>1</b>

*Swilling 2011.*

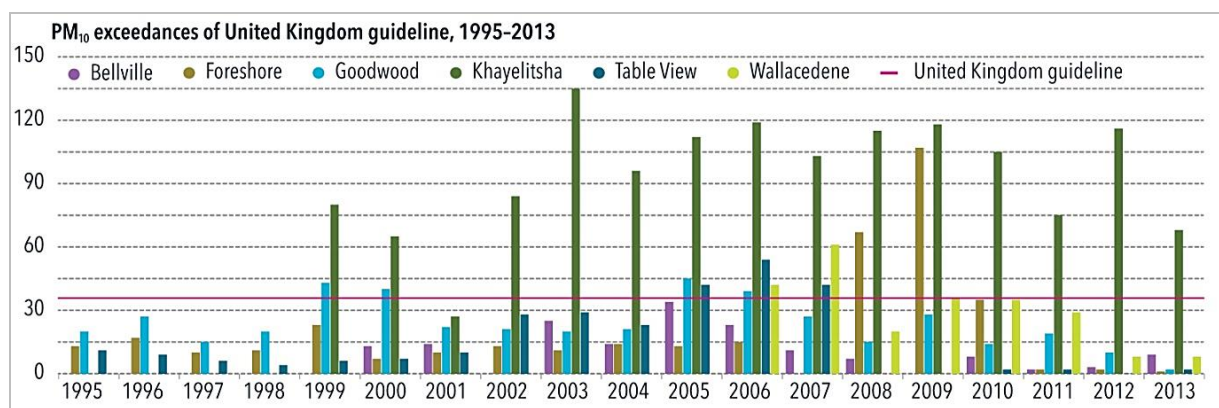
### Ecological challenges

- The use of electricity in Cape Town contributes 64 percent towards its carbon footprint, electricity which is generated through the burning of highly carbon-intensive coal. The residential and commercial sectors are responsible for 83 percent of electricity use (CoCT 2014).
- At the same time traffic volumes have been increasing by 3 percent each year for the past 10 years (CoCT 2014).
- Aligned to this, Cape Town is regarded as being particularly vulnerable to the effects of climate change, which is placing increased pressure on the environment. Cape Town's extensive biodiversity and coastal setting make it a high-risk location for disaster management. Informal communities are vulnerable to fires and flooding (Mukheibir & Ziervogel 2006; CoCT 2014).
- The state of Cape Town's fresh water and coastal areas is a serious concern, as polluted storm-water, raw sewage from informal settlements, and leaking or damaged sewers and pump stations cause worrying water contamination. With an increase in city population, annual water usage has increased – from 250 000 megalitres in 1996 to 284 000 megalitres in 2013; but per capita usage has dropped significantly through a water-saving campaign – from 312 litre per capita per day in 1999, to 200 litre per capita per day in 2013 (Mukheibir & Ziervogel 2006; CoCT 2014).

- Cape Town still follows the practice of discharging sewage directly into the sea. According to mayoral committee member for Utility Services, Councillor Ernest Sonnenberg, the discharge volumes from Camps Bay are 2,5 million litres per day, from about 22 000 people; from Hout Bay 5.2 million litres per day, from about 34,000 people; and from Green Point 30 million litres per day, from about 164,000 people (Samson 2015).
- Cape Town's air quality is dangerous to health in poor and previously underserved areas. Khayelitsha remains the most challenging area, with poor air quality resulting from untarred roads, devegetated open spaces, vehicle emissions, and smoke from cooking and heating (CoCT 2014).



*Smog over the city, CoCT.*



*Figure 46. Air quality in Cape Town suburbs. CoCT 2014.*

- The City has three landfill sites – and waste disposal reached nearly 2.5 million tonnes, or 730 kg of waste per person in 2007. Since then the municipality has embarked on waste reduction programmes and 30% is diverted through the municipal waste streams and private sector operations. But with the continued influx of inhabitants, waste disposal is a constant challenge (CoCT 2014).
- Natural vegetation within the metro reflects shocking levels of losses – over 60 percent of Cape Town's original vegetation has already been lost, and a further 52 percent of South Africa's critically endangered vegetation types are found in Cape Town (CoCT 2014).



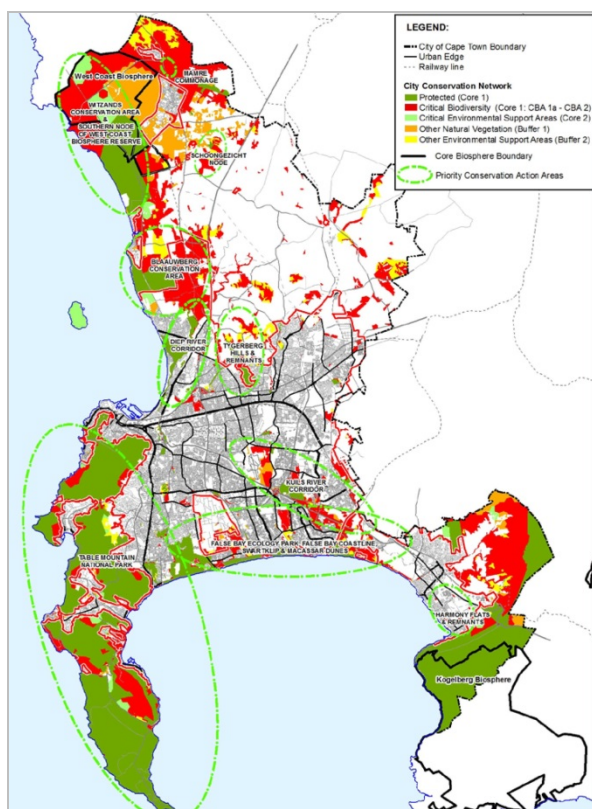


Figure 47. Biodiversity network – red shows Critical Bio-diversity areas.  
City of Cape Town's IDP 2010 Review, maps from the CoCT SDF

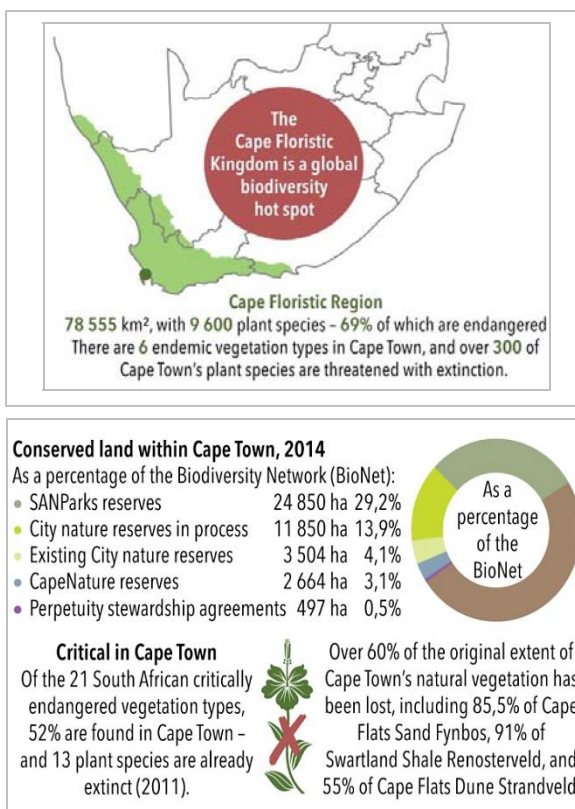


Figure 48 and Figure 49. CoCT 2014.

- Predictions have mapped the possible Cape coastline for the year 2100, with rising seawater levels. This could imply a huge loss of valuable land, buildings, infrastructure, investments, homes and livelihoods.

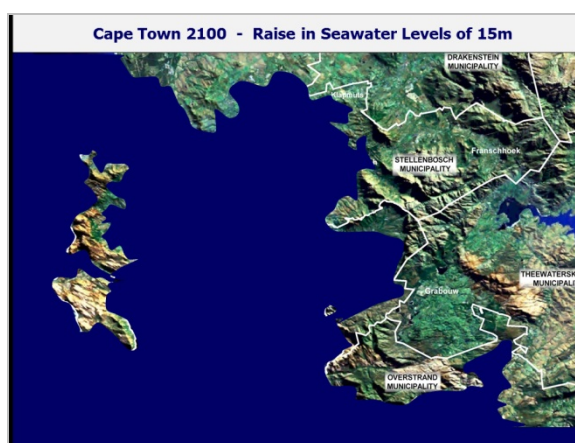
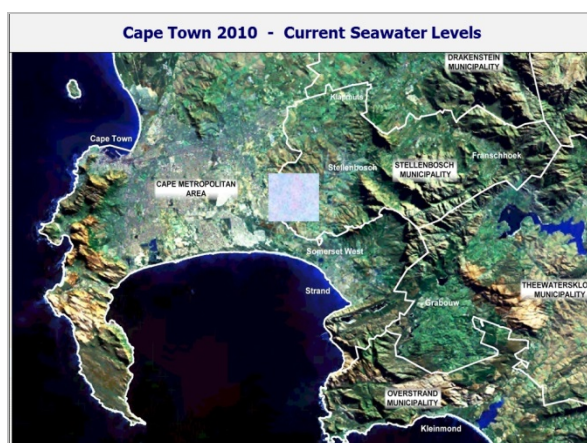
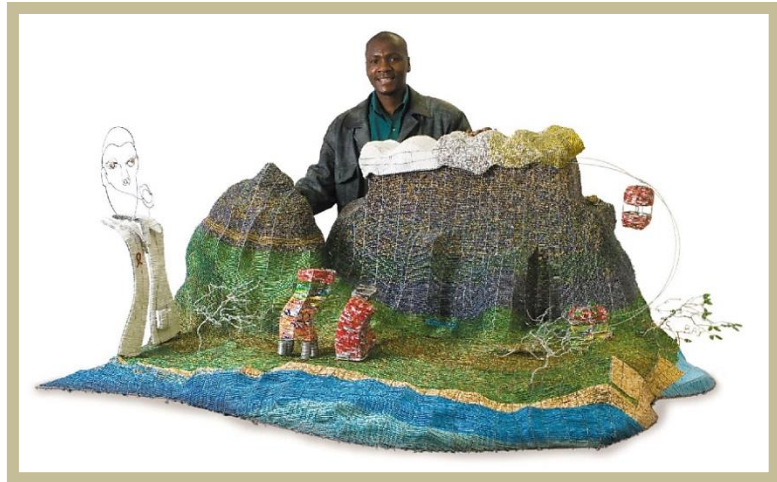


Figure 50 and Figure 51. Swilling, class lectures 2011.

## 4.10 Neoliberalism in the city

The process of formulating Cape Town's first Metropolitan Spatial Development Framework started out with good intentions. It followed closely on South Africa's first democratic elections, and embraced an urgent imperative to administer redress to millions of disenfranchised citizens (Watson 2002).



**Bishop Tarambawamwe**, with his *Winds of Change*, (the South-Easter wind) blowing even buildings and the cable-car off-kilter. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.

However, Neoliberalism (through its various champions, see Terreblanche 2012) used the deep disenchantment with the Apartheid Government to sow seeds of disenchantment with government *per se*. 'Deregulation' and 'retreating government' became the flavour of the day; and so Neoliberalism infiltrated government policies and philosophy, in various documents, with the use of terms such as 'new public management', 'entrepreneurial government', 'developmental', 'economic growth', 'competitiveness', 'global economy' and 'Local Economic Development'. Despite a 1993 World Bank Mission to South Africa report that Cape Town represented "...the most extreme forms of spatial distortions" (World Bank 1993: 5, as cited by Watson 2002), the story-line of the MSDF gradually adjusted to accommodate 'economic growth' alongside 'equity and redistribution' (Watson 2002).

Referring to the urban characteristics of Neoliberalism, as defined by Sager in Chapter 2, there are disturbing similarities between urban developments and the promotion of economic growth in Cape Town, and the characteristics mentioned. In terms of physical characteristics, the city has the waterfront development, an exhibition centre combined with conference facilities or office space, science parks and a large-scale sports stadium, out-of town retail parks and up-market residential nodes, gentrified inner city neighbourhoods with former industrial premises converted to apartments, and special innovation zones to attract the Creative Class, (Sager 2013: 133). These city amenities are rarely enjoyed by the lower-income or unemployed groups, who are stuck in their townships.

In terms of market approach by City management, there is an emphasis on public-private partnerships (deregulation as well as outsourcing), privately-governed and secured public spaces and neighbourhoods, urban regeneration and gentrification led by property developers, and city branding and place promotion (Sager 2013: 131) – the elements necessary to be part of the global city economic race. Economic growth is seen as the ultimate panacea to solve all problems of inequity, and therefore policies are geared towards easing business and investment.

While therefore rolling out Universal Access basic services to the disenfranchised, the City – as does South Africa - also courts the transnational wealthy and powerful – and compromising choices are made (Terreblanche 2012). Even the careful balance between the City's Economic Growth Strategy and the Social Development Strategy cannot counteract the results of South Africa continuing to be, since 1994 “a sub-empire of the American-led neoliberal empire” (Terreblanche 2012), with the ANC as the “new agents of the West” (Mbeki 2015). The dream of the people, therefore, does not materialise.



*The Dream: The People Shall Share In The Country's Wealth. Street Art, Cape Town, by Faith47. Photo: Rowan Pybus. [www.faith47.com](http://www.faith47.com)*



## 4.11 Design

Having considered so many aspects of the city, and with this present study in mind, one could ask the question: is Cape Town a design city? To answer this, we can trace the imprint of the technological revolutions and design movements on the city, make comparisons between Cape Town and the 'Design Cities', listen to what design experts say, and refer to research done on the topic.

**Willard Musarurwa** comfortably matches his larger-than-life Carnival Minstel, acknowledging the Cape of Festivals. CCDI 2007 exhibition: *wire+plus [this is my Cape Town]*.



### Technological revolutions, design movements - and Cape Town

A brief examination of Cape Town through the lens of historical design movements and technological revolutions highlights the city's relatedness to wider historic trends.

Linked to Europe through its colonial ties, Cape Town (and South Africa) experienced the impact of each of the technological revolutions. Railroads were introduced, from the hinterland to the harbour; a thriving port developed in Table Bay, and with time a boat-building industry developed using the lighter steel sheets for production. Belatedly a printing industry developed.



A current-day super-large tugboat being constructed in the Damen ship-building yard. [www.timeslive.co.za](http://www.timeslive.co.za)

Electricity and telephony from the third technological revolution were introduced, necessary for the start of factories and trade; and today manufacturing is one of Cape Town's leading industries.

Cape Town reflects the 1930s with its collection of beautiful Art Deco buildings, of which Mutual Heights is a prime example. The city is also home to a strong advertising sector, with companies such as Ogilvy and Mather, King James, The Jupiter Drawing Room, and Saachi and Saachi, among many others, as well as a more recent strong digital advertising contingent.



*Mutual Heights, Darling Street, previously an insurance banking headquarters, now an upmarket inner-city residential building – a fine example of Art Deco architecture. [www.capetownheights.com](http://www.capetownheights.com)*

Particularly the design movements and underlying ideologies of fourth and fifth technological revolutions have left their mark on the city. The city's many design institutions teach design history in their curricula. The advent of oil as energy, mass-produced motor-cars, and Modernism have left an indelible mark on the city, as discussed in this chapter under Urban Form. Single-use zoning of the city also comes from this period, as does the concept of high-rise buildings surrounded by open space (based on Le Corbusier's Radiant City model) (Muller 2015).

The impact of Modernism linked to Consumerism was addressed in chapter 2. In reference to this and the prevalence and influence of fashion, an exhibition called: *Movie Snaps, Cape Town Remembers Differently*, was staged at the District Six Homecoming Centre in early 2014. Curated by Siona O'Connell, it displayed photographs from the 1940s to the 1970s taken outside a photographic studio opposite the Cape Town Post Office; a chalk line was drawn on the pavement, and people spontaneously posed for their pictures. Despite the social and spatial separation at that time, fashion had the same appeal to everyone – in hair styles, clothes and shoes; in furniture, curtains and décor; also in movies, entertainment and songs – a shared culture. However, as the struggle for democracy and equal rights intensified, this shared culture was disrupted.



*Photo of exhibition by the author.*

At present, Cape Town finds itself in an ambiguous position, particular for a city in a developing country. With a burgeoning population and aspirations for a better life, Cape Town portrays the sentiments of 20<sup>th</sup> Century design – maximum individual choice - as an expression of democracy; affordable and attractive comforts for the home, be it a shack or a mansion; fashion-consciousness in clothes and home fittings. To feed that appetite there are close to 30 large shopping malls and many smaller ones, and an abundance of clothing, IT and décor shops, and lifestyle shows (Cape Town Magazine u/d).



*Century City. [www.seaforthvilla.co.za](http://www.seaforthvilla.co.za)*

At the same time 21<sup>st</sup> Century design concerns are becoming more prominent. People and Planet need to take prominence; the Cape Peninsula University of Technology, for example, teaches Ecological Design, Human-Centred Design, and Universal Design. The Design Indaba Conference annually features a few advocates of responsible design. And City projects are taking these issues into account, such as making the MyCiti transport system fully accessible to mobility-challenged users.



*Universal access of the MyCiti system in Cape Town. [www.capetown.gov.za](http://www.capetown.gov.za)*

Projects submitted for Cape Town's World Design Capital 2014 programme as well indicated a marked shift from 20<sup>th</sup> Century to 21<sup>st</sup> Century concerns (Manzini 2014), while the City's own Ward workshops (see Chapter 8) enlisted the methodology of participatory Co-Design. Cape Town scripted its theme and slogan more sensitively to social inclusion, rather than a total focus on economic growth.

In terms of ITC, cell-phone technology has been adopted almost universally by citizens of the city. In addition, Cape Town aspires to a knowledge economy, and is rolling out broadband connectivity in certain selected areas.





[mybroadband.co.za](http://mybroadband.co.za)



[www.gardenroute.com](http://www.gardenroute.com)



[www.wsj.com](http://www.wsj.com)

### **‘Design Cities’ – and Cape Town**

A few correlations can be drawn between Cape Town and the historical contexts of the ‘*Design Cities*’, discussed in Chapter 3.

#### **Cosmopolitan, educational institutions, tourist mecca**

Cape Town is not at the epicentre of world finance and trade, but certainly shares this in common with London: it has a cosmopolitan citizenship, a working harbour, a range of design educational institutions and exhibitions, and is visited by international designers. Exhilarating shopping experiences and excellent cuisine testify to an ability to cater for the tastes of design- and quality-literate visitors.

#### **Design community, the love of a lifestyle, retail pleasure, lifestyle magazines**

As in Vienna and Paris, Cape Town has a lively and passionate design community (see Chapter 5), non-conformist and pro-active, with a number of iconic designers and opinion-leaders.

Through the medium of film and television, Cape Town undoubtedly adopted the American Lifestyle from Los Angeles - the cars, the highways, the love of the retail experience, a focus on the outdoors, and the lifestyle magazines. Cape Town has become a haven for the advertising industry and for industrial design. And Cape Town’s fascination with ICT can be traced to Tokyo’s experimentation in that sector.

#### **Political opposition and instability**

Cape Town shares a disquieting similarity with Milan of the 1960s – not only does it have a Consumerist design culture, but is also home to sharp political opponents, and violent protests are part of everyday life. Cape Town shares this unfortunate distinction with current Los Angeles, in that it is one of the most unequal and spatially unjust cities, with urban sprawl, poor public transport, and

debilitating access to economic opportunities. Frequent riots, clashes with police, and gang wars are other disquieting similarities (Muller 2014).

### **A desire to redesign itself**

The Modernism birthed in Vienna, the American Lifestyle birthed in Los Angeles, and the expression of European Consumerism in Milan, all flowed from a desire to redesign and break with the past, whether these were stifling customs and structures, or a devastating war. 20 Years after democracy, with a colonial, modernist and Apartheid legacy, and a conservative political reputation hard to shake off, Cape Town might have the same desire to redesign itself into a beacon of 21<sup>st</sup> Century ideals and values.

It is the factor of deep inequality, protests, and civil unrest, which will need the most consideration in the future, if design is to have the space to contribute meaningfully to Cape Town's urban experience. But if design is - at heart - the solving of problems, however that problem is conceptualised – then, in the never-ending rhythm of problem-solution-problem-solution-problem – 'design' may well be the most appropriate tool to again find solutions to very complex problems.

### **Industry experts**

A significant forum was held during the 2009 Design Indaba, as Cape Town Partnership invited 18 speakers from a wide spectrum of design disciplines - city departments, property development, design education, tourism, and communication channels - to attempt an answer to the question: Is Cape Town a design city?

"Cape Town" said David Schmidt from Strategies for Change, "is a 'city of villages' – according to race, class, and sub-groups". He questioned whether creativity could help achieve fusion. He also quoted Lester Tureau as referring to creativity as the fuel of the 21<sup>st</sup> Century, undergirding all activity; but if it is to contribute meaningfully, it should not be seen as a separate industry, but integrated into all actions (CTP 2009).

Despite Cape Town's natural beauty and setting, Alastair Rendall, architect from ARG Design, could not agree that Cape Town was a design city. His contention was that the central city got most of the attention and publicity, but without the central city and the attractive Atlantic coastline, would the city still be attractive? Good city design needed timeless, symbolic, inspiring, memorable elements

across the whole city. An IRT system that crisscrossed the city could be catalytic to achieving this, while uplifting local communities and connecting public spaces (CTP 2009).

The city served as a frame to citizen activity and should encourage creativity and inspiration, maintained Cathy Stone, director of Spatial Planning and Urban Design for the City of Cape Town. For Cape Town to be a design city, a progressive approach should be followed, and a balance maintained between the permanent, formal and classic, and the experimental, informal and fashionable in city-making. Remunerated opportunities for artists in communities should be created; there should be greater freedom and tolerance around citizen expression such as graffiti, skateboarding, buskers, and the use of space for celebrations; and the element of surprise and spontaneity in temporary city structures (such as the Serpentine Gallery Pavilion in London) should be encouraged (CTP 2009).

The same question was posed to designers in December 2010 in the run-up to the WDC 2014 bid. Is Cape Town a design city?

In support, Byron Qually cited a number of local designs: the 'twisted H' dolos, which protects the coastline by dissipating the enormous wave action; the Freeplay Wind Up radio, a world leader in personal energy creation; the Optimal Energy electric vehicle, with potential to manage the carbon footprint – novel solutions for technical and socially-complex issues (CT 2014). Heather Moore proposed the public transport system, pedestrianisation, and bike lanes, which reduce pollution, address traffic-related frustration and aggression, and make people fitter (CT 2014).

"Design is about products, but also processes and lateral thinking", said Mokena Makeka. "In these respects Cape Town is definitely a design city. For design and creative thinking is in art, architecture, IT development, political strategies, and social processes". And referring to public spaces in the City and on the Atlantic Seaboard, Ian Harris suggested Pier Place, Church Square, the Fan Walk, and Sea Point Promenade as spaces that allowed citizens to relax, connect with other citizens, get out of their cars, enjoy public art, and see the city differently.





Daniel Sullivan, team member of the City's 2014 WDC department, maintains that the City of Cape Town does have a design 'DNA' – a problem-solving approach and attitude, which has formed the basis of a 'Cape Town Toolbox to Design Thinking'; one of the legacy projects within City management (CoCT u/d). Sullivan argues:

There is evidence of design-led innovation in very many areas of City work. Until the City won the WDC bid, however, there was, at best, modest celebration of its achievements and little articulation of the language of design. And so one of the first things we did was to go through a co-design process with a diverse group of fellow officials in order to develop a methodology to assess the application of design thinking in the City. Ultimately, around 70 past, present and pending City projects were identified as in some way being 'special' from an innovation or design perspective. ... through these projects the City would like to raise awareness of the enormous complexity with which it is grappling and to demonstrate and develop the effectiveness of the City's approach to meeting the multiple needs of Cape Town.

(Sullivan u/d).

In particular he mentioned the City's innovative reporting mechanism to counter grumbling and protesting citizens and pass-the-buck-officials – "a user-friendly multimedia notification system, unique in its design for receiving, allocating, executing, closing and reporting on customer service requests" (Sullivan u/d).

### **Design contribution to Cape industries**

In the 2012 survey of Cape designers, which was conducted for the writing of the Western Cape Design Strategy, designers were asked to indicate to which industries they delivered services. The retail sector was ahead by a long stretch - 68 percent - with manufacturing lying second at 45 percent. Cape Town has close to 30 large shopping malls, and many more smaller shopping centres, selling food, clothing, shoes, accessories, cosmetics, furniture, home appliances, soft furnishings, electronic goods, books, visual media, flowers, and beauty, travel, entertainment and other services (South Africa has more than 2 000 shopping centres and the 6th highest number of shopping centres

in the world - “Happy customers mean happy retailers and that leads to happy shopping centres” (Smith 2015). South Africans, it can be said, are Consumers.

Catering and Accommodation came in at nearly 44 percent, while the finance and business services sector was seventh on the list, at 30 percent (WCPG 2012).

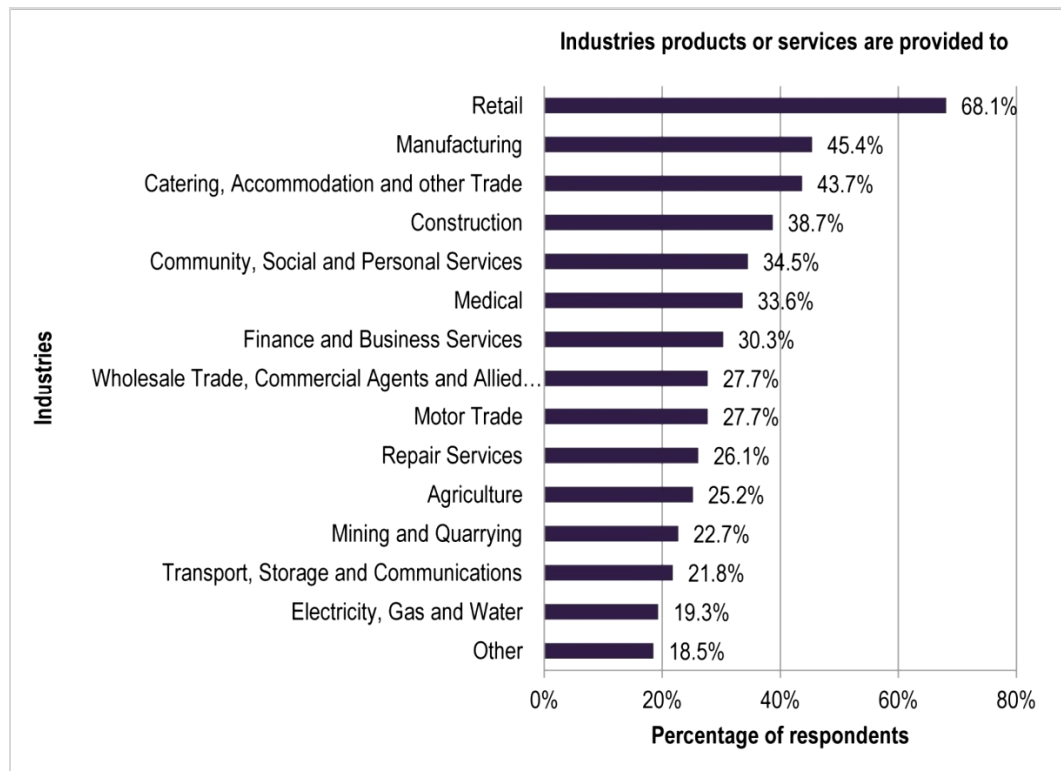


Figure 52. Design industry products or services provided to Cape industries. WCPG 2012.

The barriers to a growth in design’s contribution to the economy (with reference to the Danish Design Ladder in Chapter 2) were identified as:

- design’s application not being appreciated or understood in the business community;
- duplication, gaps and limited collaboration in the enabling environment and the existing design ecosystem (tertiary institutions, government support bodies and departments, design professionals and networks, the business and manufacturing industries, the public);
- the education system being slow to respond to the design challenges of the 21st Century.

WCPG 2012.

However, precisely because South Africa’s economy falls between the developed and the developing worlds, it could be possible to leapfrog the Design Ladder steps through concerted promotion and education (WCPG 2012).

## The voice of the people

In 2012, the WDC stand at Design Indaba asked visitors ‘What does design need to solve for you?’ Results were posted on their website on 29 March 2012, under the catchy title of *Cape Town got 99 problems, but design ain’t one* (CT 2014 2012).



Visitors to the World Design Capital stand at Design Indaba 2012 record their ideas with post-its. (WDC2014).

Forty-six percent of respondents thought the problems in the City of Cape Town would need design to help them improve. Reuniting a city divided by Apartheid – citing social ills, poverty, housing, education, employment, health, food, public art, and public spaces - received particular mention (CT 2014 2012). Environmental issues such as sustainable power solutions, workable recycling systems, urban farming, better infrastructure for cyclists, and solutions to the transport challenge were high in demand. As one post-it put it: “a move for awareness and involvement of the public in eco-friendly and sustainable ideas, not just isolated to industry professionals”. And, said another post-it: “Design a way to gently explain to people that you cannot solve anything by buying more stuff” (CT 2014 2012).

Design advocacy to build citizen awareness was called for by 20% of respondents – to spread the message of design as a means of improving the quality of life for all. “Creativity is not elitist,” stated one post-it. “Design needs to link our different economic sectors, cultures and living areas together in a fluid, functional way that beautifies and makes Cape Town the magnanimous, magnificent city it can be,” said another (CT 2014 2012). Commitment to prioritise design after WDC2014 also came from the City; Mayor Patricia de Lille’s post-it said: “How to use design to transform government to deliver services faster”. While another post-it



implored local, provincial and national administration: “Government needs to view civil engineering as design and not just a way to spend money” (CT 2014 2012).

These responses indicate a high level of awareness of the potential of design to address critical urban, social and ecological issues. If Cape Town’s citizens have that awareness, perhaps Cape Town has that potential.

## 4.12 Concluding remarks

Cape Town is a designed city, aspiring to be a ‘design city’.

When viewed through the technological revolutions and design movements, and the evolutionary development of cities, Cape Town certainly has a design history and legacy. The impact of a number of design movements, applied by political ideologies, is still present. For many of its citizens - by whatever name or concept they experienced Design - it did not engender trust.

Cape Town is a paradise to some, a living hell to others. It is a city of promise and prosperity, but at the same time a prison of historic circumstances. Its social, spatial and income divide is its most significant characteristic, which manifests in a profound lack of trust between sectors of society. Cape Town’s injurious history turns the search for the optimal social and environmental good into tortuous decisions: “What is equity? What is fair? Whose ‘good’ comes first? Who gets to decide?” (Rittel & Webber 1973).

With its high Gini Coefficient and unemployment rate, the city cannot qualify as socially sustainable. Equally, its environmental sustainability is not assured, with species and sensitive ecological areas under threat, and a problematic ecological footprint. And while the city seems to have a positive economic outlook, it cannot be deemed sustainable if it consistently favours the higher income groups and the poor are driven further from economic opportunities through market forces.

The City seems to be succeeding as a Well-run City; and is channelling tremendous effort at establishing itself as an Opportunity City. The late 20<sup>th</sup> Century ‘death of inner cities’ and ‘urban flight’ has been experienced, and reversed, with visible results. The 21<sup>st</sup> Century challenge to become a city ‘star’ has manifested in iconic buildings, ‘creative city’ enclaves and projects, and broadband roll-outs. Clearly, Cape Town is very much part of the global village, and open to influences, trends, and movements.

But it is the Inclusive City, and therefore the Safe City, which is the most elusive – Cape Town's unemployment and murder rate attests to that.

The range of city policies, strategies, projects and awards (Appendices F, G and L) testify to the City stepping up to critical urban concerns, to a sharp awareness of environmental and social issues, and to technology being harnessed in pursuit of solutions. The Green Economy is being promoted along with other business solutions, as are cultural activities and programmes for inclusion. Skills training and the development of human capital are high on the agenda; as well as promoting public participation and negotiation.

Many challenges remain: for example, the concept of 'regenerative' has not yet surfaced in public debate. Citizen protest action, such as land grabs, might be seen to be counter-productive – but could this also be viewed as 'radical incrementalism', the people claiming a democratic voice? GDP is still the golden means of measurement, although an attempt at a more representative view of the city and its people is being presented through the HDI.

It is an uncomfortable reality that, whatever steps are taken towards full sustainability, citizens (and designers) will find themselves arm-wrestling with the powerfully ingrained neoliberal economic system of privileged and selective empowerment. Noam Chomsky reminds us, "Capitalism is shot through with subsidies for some of the most powerful private actors" (www.Salon 2015). This system has embedded itself on many levels and fronts, both locally and globally; it has become our familiar 'habitus'. Systems are extraordinarily difficult to shift.

It will take a radical paradigm shift before an explorative approach to change could be instilled in the city psyche. Political pressures are enormous, with no room for experimentation. This is the difference between Compliance and Creativity (Muller 2012b) as Goven experienced, when presenting an innovative, encompassing solution to the informal settlement in Kosova, which was stifled through bureaucratic processes (Pieterse 2009). But the challenge remains: city authorities need to create an ethos in which civil servants and citizens are able to "think, plan and act with imagination" – a vision of city-wide co-creation (Landry 2008).

From a larger perspective, the design status quo of Cape Town could be interpreted in the context of present global design movements, and correlated to unfolding technological revolutions and socio-metabolic transitions. Cape Town is a case study of a city that is a melting pot of various design

movements: the consumerist approach dictated by the emphasis on economic growth, the human-centred approach called for through socio-political pressures, and the technological advancement approach, required by 'world city' ambitions. At a confluence in time, the city is experiencing three technological revolutions (the end of the 4<sup>th</sup>, the middle of the 5<sup>th</sup>, and the start of the 6<sup>th</sup>) (Swilling 2013), while being shaped by the resource-availability of the 3<sup>rd</sup> socio-metabolic transition (land, energy, skills and knowledge) which will determine its path to sustainability (Krausmann et al 2009).

Whether Design can meaningfully contribute towards social, economic and spatial change towards a Sustainable City is a serious consideration. The challenges facing the city are so great that it would need nothing less than visionary, unorthodox leadership, citizen participation, transdisciplinary input, and creative, iterative processes – a design thinking approach, undergirded by complex systems thinking and modelling.

The mood is ripe for some kind of revolution. Linking to the premise that everything that has been designed in the past five technological revolutions needs to be redesigned with an ethical lens, it is a tantalising thought that our economic, social, and urban systems could be redesigned. If we could tap into the 'revolutionary energy' of designers, with attitudes of 'modesty and careful conservations' (Latour 2008), there could – most dramatically – be a clash of 'revolutionary' forces; violence and anger, versus creativity and service. This would be an epic negotiation on many fronts, and design has no time to lose.

It would need design practitioners on all levels to question whether their work is contributing to holistic sustainability, or whether they are handmaidens of a system that perpetuates inequality and destruction.



# 5 The Cape Town Design Community

## Introduction

A key feature of a number of the cities featured as 'Design Cities' in Chapter 3 was their vibrant artistic and creative community. This is apparent in Vienna, Paris, Los Angeles, Milan and London. This group of adventurous, questioning, non-conformist people seem vital as an opposing force to stagnation. In general, their life-urge is to question the old, discover or invent the new, and carry as many people as possible along with them into the future – by creating a 'movement'.

Cape Town has a lively entertainment scene: artists, musicians, dancers and performers, writers and filmmakers – the backbone of the Creative Industries. There are galleries, art shops, lifestyle and décor shows, lifestyle publications, design education at a number of institutions, and festivals. Within the Creative Industries, does Cape Town have a community of design thinkers and doers? For such a community will be necessary to ensure that over the long-term design is embedded in the minds and hearts of its citizens, in the procedures, services, and policies that govern them, and in the city's production methods and problem-solving methodologies.

In tracing some of the leading individuals, it must be remembered that behind and alongside them there are a host of others, who 'think' and 'do' design. Many of these individuals head-up or are within key institutions in the city. Both the driving-force and vision of the individual, as well as the mandate and power of the institutions, contribute towards creating the larger loosely-structured design community.

I have mainly concentrated on those individuals and institutions that operate in 'soft', and 'in-between' design, (Campbell 2008) which I have described as those forms of design that contribute to the 'finer weave of society' in Chapter 2. Leading personalities in the 'backdrop' or 'hard' design forms (urban form, engineering, and transport networks) are not well represented, due to me not having encountered them in my work situation.

## 5.1 Of thinkers, doers and institutions

Early in the 1990s, Ravi Naidoo, a visionary person, conceived an annual, international gathering of designers in Cape Town, to focus attention on the achievements of local design, and, through the international infusion, to inspire and stimulate further excellence in this field locally.

*Ravi Naidoo, CEO of Design Indaba. (Daily Maverick).*



Over the past years, the *Design Indaba Conference* has served a significant purpose in drawing enthusiastic crowds of academic and practicing designers and design students together. Increasingly the conference has reflected social and environmental responsibility by many top designers (Relph-Knight 2005). Design Indaba was presented for the 21<sup>th</sup> time in 2015, while the Expo was in its 11<sup>th</sup> year. The Design Indaba Expo showcases and raises awareness for local design, mainly in the area of lifestyle, fashion and décor objects (Berman 2013). Conspicuous in their absence on the Expo has been design and inventions from other industry sectors, such as mining, the medical field, the process of manufacture, agriculture, educational tools, government, urban planning and architecture. This is a commercial imperative – only those with the immediate prospect of sales will buy space on the Expo. The Cape Town Graduate School of Business has calculated that Design Indaba added R1.3 billion to the national economy for the 5-year period 2010-2014 (Berman 2014). Expanding into areas such as film and music, and other venues in South Africa and Europe, Ravi now sets his sights on Africa, to share with the continent the benefits of what he calls ‘the Designer Century’. “Having incubated South African design, our focus has moved from national to continental” (Berman 2014).

The forming of a Cape Town design ‘community’ has further been encouraged over the past ten years, through the Creative Cape Town (CCT) programme (CCT u/d), started in 2009 by the Cape Town Partnership, (CTP) (initially led by Andrew Borraine, and now by Bulelwa Makalima-Ngewana) (CTP u/d). While the CTP was initiated in 2000 as a private-public partnership between the City of Cape Town and inner-city property owners to reclaim a decaying inner city, the potential of designers and creative practitioners to enhance the ambience and appeal of the inner-city was soon realised and embraced. Through their discussion forums, *Design Dialogues*, the *Infecting the City* outdoor performing arts festival, an



*Zayd Minty, founder of Creative Cape Town and the driver behind Cape Town’s bid for WDC 2014.*  
[www.capetownnpc.org.za](http://www.capetownnpc.org.za)

annual publication highlighting all the creative sectors, and a regular on-line newsfeed, Cape Town's identity of a Creative City has been built. A significant further project in the eastern precinct of central Cape Town is a plan to create an innovation and design hub to provide a holding space for the knowledge economy.

Cape Town Partnership was integrally involved in mustering support and writing the Bid Book for Cape Town's World Design Capital 2014 bid.

The Cape Town Design Network (CTDN) (a voluntary organisation, started in 2011, and run by a group of dedicated and visionary educational and practicing designers, such as Christo Maritz from Infestation Design Studio, design educator Suné Stassen, design lecturer Bruce Snaddon, and architect and designer Y.Tsai), is an offshoot of the Creative Cape Town programme. In 2013 the CTDN launched its 10-day *Open Design Cape Town* festival which aims to make design more accessible and understandable to both the public and career-seekers (CTDN u/d; Open Design u/d).

A number of other organisations also present regular events, such as the Plascon Trend Talks (Lauren Shantall), which serves to draw designers together to network and hopefully collaborate (Plascon Trend Talks u/d), and Cape Town's own version of Pecha Kutcha<sup>12</sup> (led by Dave Cotton) which periodically presents short-sharp presentations and case studies from local designers (Pecha Kutcha u/d).

These gatherings tend to draw audiences from the same pool of creative practitioners, academics and students (see *Research Profile of the Western Cape Design Sector* in this chapter). In short supply at these gatherings seem to be the urban and development planners, transport planners and engineers, architects, landscape architects, related academics and government basic-service providers, i.e. those who create the overall city 'canvas' against which the industrial, graphic, web, surface, fashion, interactive and other designers 'project' their ideas and work.

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<sup>12</sup> Pecha Kutcha is a Japanese presentation style, of 20 slides of 20 seconds each.

There are a number of institutions that create platforms for critical debate about urban form. The UCT African Centre for Cities (ACC) (led by Professor Edgar Pieterse) presents public debates on critical city issues, and Future Cape Town (FCT) (led by Rashiqa Fataar) offers architectural walks and on-line topical debates, targeting a different audience, and drawing city-makers and -shapers. 'FCT Your City Idea' booths were dotted around the city for a few months, elicited citizen opinion. There are also occasional meetings by the Cape Institute for Architecture (CIA) (ACC u/d; FCT u/d; CIA u/d).



*Your City Idea booth. Photo: Future Cape Town.*



*Professor Mugendi M'Rithaa  
(Photo: Jake de Villiers).*

A key influencer in the design community, and supporter of the Cape Town WDC 2014 bid, is Kenyan-born Professor Mugendi M'Rithaa in the Department of Industrial Design at the Cape Peninsula University of Technology. At the 28th General Assembly in 2013 in Montreal, Canada, he was voted in as president-elect of the International Council of Societies of Industrial Design (ICSID). Socially responsive, universal, and transformative design is his passion: In 2011 Prof M'Rithaa said: "Even though we have thousands of people engaged in creative industries in the city, to date there has been no collective vision. The [WDC 2014] bid process gives us a common platform for acknowledging design as an asset and is a massive catalyst to align creative narratives" (Koblitz 2011).

The Cape Craft + Design Institute NPC (CCDI) (led by Erica Elk) is a Special Purpose Vehicle (SPV), for a number of years focussed on promoting and supporting mainly the hand-making artists and designers of the Western Cape province. The CCDI was established by the WCPG Department of Economic Development and Tourism (DEDAT) and CPUT, and also enjoys funding support from the WCPG Department of Cultural Affairs and Sport (DCAS), and City of Cape Town departments of Economic Affairs, Arts and Culture, and Events and Festivals. Since producing the Western Cape Design Strategy for the WCPG DEDAT in 2013, the CCDI has widened and deepened its scope to include designers in all spheres, to whom it offers business training, product prototyping, market platforms and also monthly talks and networking opportunities, through



*Erica Elk, executive director of CCDI.*

the *CCDI Creative Exchange* (CCDI u/d). The Design Strategy aims to empower designers to be more business-ready, while alerting and preparing the private and public sectors and the citizenry to the power of design to grow the economy and improve quality of life. The CCDI has been appointed as the PGWCs official implementer of the Design Strategy.

With its unambiguous emphasis on economic growth towards the prosperity of the province, the WCPG DEDAT created 13 Special Purpose Vehicles (SPVs) to represent various industries. The SPVs all have specific constituencies that require their support and services. Of these, 8 have strong links to design's various disciplines, while the other 5 are serviced by design. The SPVs contribute vitally to the creative fabric of the city.

- Cape Clothing & Textile Cluster (CCTC)
- Cape Craft & Design Institute (CCDI)
- Cape Information & Technology Initiative (CITI)
- Cape Town Fashion Council (CTFC)
- GreenCape Sector Development Agency (GSDA)
- Marine Industry South Africa (MIASA)
- Natural Product Sector
- South African Oil & Gas Alliance (SAGOA)
- Western Cape Aquaculture Development Initiative (WCADI)
- Western Cape Fine Food Initiative (WCFFI)
- Western Cape Furniture Initiative (WCFI)
- Western Cape Clothing & Textile Service Centre (CLOTEX)
- Western Cape Tooling Initiative (WCTI)

On a systems level, the Economic Development Partnership (EDP) (led by Andrew Borraine) has been founded as a bridging partnership between provincial government and the private sector (WCEDP u/d). The EDP aims to develop strategies and systems which would enable economic growth in the Western Cape. Their long-term OneCape 2040 plan suggests deliberate interventions towards a more inclusive, resilient and competitive regional economy. It recommends transitions in six areas: knowledge (Educated Cape), economy (Enterprising Cape), ecology (Green Cape), connectivity (Connected Cape), settlement (Living Cape) and institutions (Leading Cape). Among others they are also developing an Economic Growth Strategy, a Regional Economic Performance Index, a Regional Innovation Strategy, a Leadership and Partnership Programme, and a Partnership for Employment Programme, which aims to get people working now, and to identify and develop the skills needed for the future (EDP u/d).

There are many other role-players (actors, in Actor-Network Theory) in the design community - student designers, and practicing designers, some of them Icons. There are design lecturers, design activists, government officials, arts administrators, event organisers, owners of shops and galleries, museum and exhibition curators.

There is a tremendous vibrancy in this community, and there are also many egos and power-plays, which could stifle good ideas and constructive cooperation. But egos are not necessarily a deterrent

in striving for excellence. Ambition channelled for the right cause can achieve commendable results. As we saw in the case of the *Design Cities*, it was mostly visionary individuals that propelled progress, and had enough conviction to inspire followers.

## 5.2 Political support for Design and the Design Strategy

The high-profile Design Indaba and Expo, the activities of the creative SPVs, Creative Cape Town, Open Design, the presence of key advertising agencies, and signature lifestyle magazines, has contributed to Cape Town being increasingly recognised as a leading centre for design.

The Western Cape Government (WCPG) has identified the ‘creative industries’ as priority industries worthy of support, due to their potential to play a key driving role in economic growth and employment creation. Similarly, the City of Cape Town recognises the growth potential of the creative industries and has developed a creative industries strategy for the City.

Mthente 2012.

In 2012 the Western Cape Department of Economic Development and Tourism commissioned the Cape Craft and Design Institute to write a Design Strategy for the province. This strategy was launched on 18 September 2013.

The concept and roll-out of design and design thinking enjoys the full support of the Premier of the Western Cape, Helen Zille. At the launch of the Design Strategy, she declared that it “... identifies design and related activities as one of the four key drivers to harness economic growth potential in the Western Cape, alongside the green economy, IT and broadband, and strategic infrastructure” (WCPG 2013).

*Premier Zille launches the WC Design Strategy during the Premier’s Council on Skills.*



On 5 June 2012 she launched the 110% Green Initiative, to direct local government’s procurement policies, and advance the province’s status as the green economy hub of South Africa. On 18 September 2013 the Premier’s Council on Skills focussed on Design, to outline the status quo in the education system, identify the gaps between demand for and supply of skilled designers in all fields, and future actions necessary to encourage learners towards a design career (WCPG 2012, 2013).

Early in 2014, the Premier also commissioned the CCDI to run the Better Living Challenge (BLC), a project to identify economical and ecologically-friendly building material and home fittings for lower-



income housing, which culminated in an exhibition at the Cape Town Station forecourt, in November 2014 (BLC 2014). And on 17 October 2014, as she launched the Design Policy Conference, the last official event of World Design Capital 2014, Premier Zille declared: “Design is solving problems with ingenuity and with vision. Some of the best designs solve problems that we didn’t even know we had because of people’s real vision and creativity. One of the best things about this conference is its theme, ‘make a plan’, which means a lot to South Africans since “n boer maak ‘n plan’ (Afrikaans for ‘make a plan’) is one of our best known phrases. South Africans can and do make plans to overcome our challenges” (CCT 2014).

Mayor Patricia de Lille committed a budget of ZAR60 million (US\$ 4.5 million/€4 million) in support of World Design Capital. Part of this funded Cape Town Design NPC (CTD), established to manage the roll-out of World Design Capital 2014, and which has now been dissolved. The other part of that budget funded a newly-established World Design Capital inward-looking department in the Cape Town municipality, tasked, among others, with investigating ways to overcome silo-functioning in service delivery through design-led thinking. “Previous holders of the WDC title – Turin in 2008, Seoul in 2010 and Helsinki in 2012 – did not use their terms to turn the design lens upon themselves. But at the gritty level of city management in a developing country, design-led thinking offers tantalising promise”, maintained Mayor de Lille (CoCT WDC2014). However, this cross-disciplinary department has also now been dissolved.

In addition, a series of co-design workshops with the 111 Wards of the City were held, bringing designers, citizens and ward councillors together to plan how to spend allocated ward money in the way the community would most desire it. The outcome of these ward co-design workshops will still be felt over the next 2 years, as the projects are implemented.



*Cape Town Mayor Patricia de Lille, champion for WDC 2014.*



*Richard Perez, director of the WDC department, created in the CoCT during 2014.*

## 5.3 Profile of the Western Cape Design Sector

### Studies and Surveys

Various small research studies or surveys have been done during the past few years to try to form a picture of the design sector in Cape Town. Cape Town has a central business district and radiates outwards from the Atlantic Seaboard to suburbs, townships, areas of heavy and light industry, financial nodes, and two or three competing business districts. The studies and surveys have mostly focussed on design activity in the central city.

#### 2009 – An early survey

One of the earliest surveys done in 2009 by Creative Cape Town of the Cape Town Partnership (whose mandate was the revitalisation of the inner city), identified close to 1000 creative entities in the central city, of which roughly 500 delivered design-related services (CCT 2009). These services were mainly architectural design, fashion, jewellery, and furniture design, advertising and ICT innovations, with the potential inclusion of film companies and publishing houses.

“Designers are drawn to Cape Town as a creative place to live and work: beautiful people in a beautiful city making beautiful (and useful) things”, said the report and went on: “The fact that key design calendar events like Design Indaba, the Loeries and the country’s leading fashion week happen here is testimony to the fact that the country considers Cape Town a design hub”. Alistair King, director of King James advertising, was quoted: “My creativity went through the roof when I landed in this city. There have always been phenomenal creative people in Cape Town to live up to. And you do your best work when you’re working with the best people” (CCT 2009).

**Cape Town’s Central City** hosts more than **35** annual big events, of which **5** are major design related events, has **60** galleries, **22** live music venues, **9** performance venues, **20** museums, **2** multi-purpose venues, **3** cinema complexes, significant number of heritage sites, **plus** a multitude of innovative restaurants, bars, cafés, club venues and accommodation.

There are **86** architecture firms | **81** communications and advertising companies | **95** fashion houses | **51** local craft producers | **62** photography firms | **69** jewellers | **145** other design related companies (industrial, interior, graphic/media) | **46** publishers | **73** media houses | more than **27** magazine titles published | more than **6 300** permanent jobs in the creative economy of the Central City.

*CT Partnership presentation (2009)*

At the time this information was used to motivate for providing extra support to key areas in the central city and surroundings for the development of a design and knowledge economy precinct – in particular the East City and Woodstock were considered.

## 2012 – A Research Study

The most comprehensive research study (Mthente 2012) into the design sector was commissioned by the Cape Craft + Design Institute as a baseline study for the Western Cape Design Strategy, endeavouring to include the whole Western Cape Province. This study involved 153 design enterprises, representing a staff component of 6130.

### The disciplines of design

The study defined the various disciplines of design, grouping them into 5 main categories, and making clearer the distinction between the design sector and the creative sector.

The various design disciplines also represent careers, and are categorised according to their outcomes, i.e. Product Design (object making), Communications Design (image and message making), Spatial Design (place making), Service Design (experience making), and Systems Design (system making), as discussed in Chapter 2.

While the design sector is *part of* the cultural or creative sector<sup>13</sup>, the creative sector *also includes* fine arts, music, literature, filmmaking and television, and the performing arts. All of these *use* the various kinds of design services. The whole creative sector nests within an infrastructure which includes advertising agencies, educational institutions, IT companies, galleries, museums, antique shops, publishing companies, libraries, theatres, restaurants, and more.

### A profile of the Western Cape design sector

The research results reveal the following:

- The 153 design businesses which participated in this study consisted mainly of small, very small and micro businesses (less than 20 staff members) – 78 percent.
- The 153 design enterprises reported a full-time staff component of 6130 – significant for a small business sector.
- Even though small, businesses have survived, existing for 11 years or longer – 65 percent.
- For all the design disciplines combined, more than half of the respondents reported that it was easy to find suitable staff – 60 percent. Lack of work experience and design experience were mentioned as constraints to finding the right staff.
- Most disciplines required specific training at graduate or diploma level, and even beyond.
- A small percentage reported annual turnover figures beyond R10 million – 12 percent. The others were well below, or preferred not to divulge these details.
- 9 Percent more respondents classified their output as **services** (75 percent) rather than **products** (66 percent), while delivering both.

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<sup>13</sup> “Cultural Industries are defined as those industries which produce tangible or intangible artistic and creative outputs, and which have a potential for wealth creation and income generation through the exploitation of cultural assets and production of knowledge-based goods and services (both traditional and contemporary)” (UNESCO, 20.11.2006: 1).

- The top 5 industries using design services were reported as Retail - 68 percent; Manufacturing – 45 percent; Catering, Accommodation and other Trade - 44 percent; Construction - 39 percent; Community, and Social and Personal Services - 35 percent.

Mthente 2012.

Of the 153 design entities interviewed, the most fell in the industrial and product design discipline, with very few interaction and systems designers.

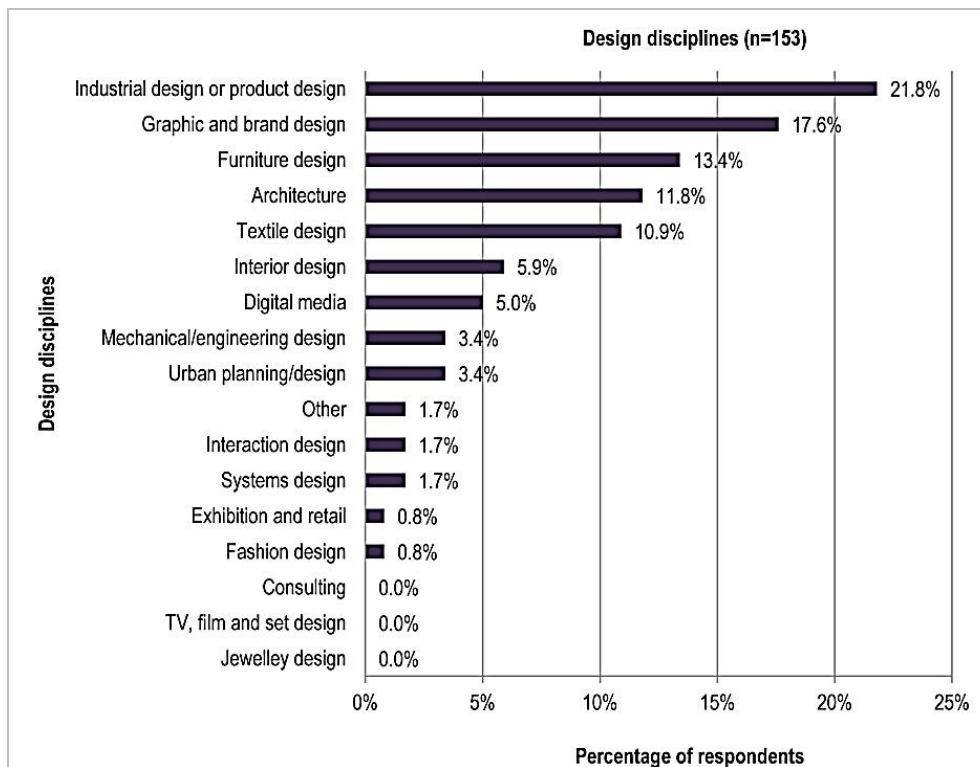


Figure 53. Design Disciplines represented in the Western Cape (Mthente 2012).

Together these disciplines group into the following broad design categories, with Product and Surface Design far ahead of the others.

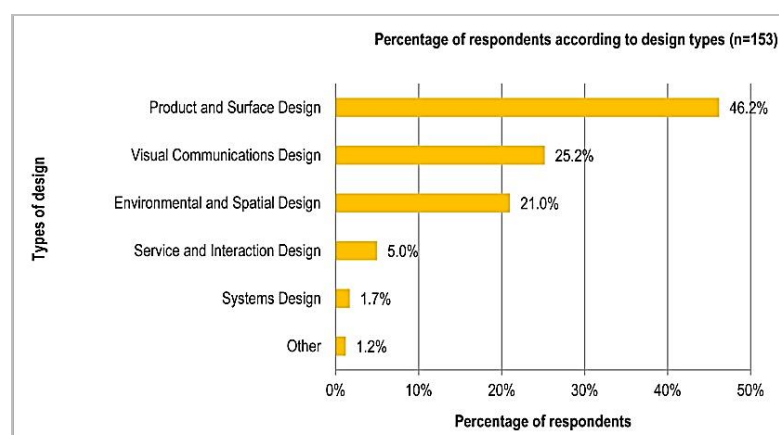


Figure 54. Percentage of respondents by design categories in the Western Cape [Mthente 2012].

The disciplines within which designers work correlates with the main industries to which they deliver services, i.e. Retail, Manufacturing, Catering and Accommodation, Construction, and Social Services.

These industries are an indication of the demand within those sectors, as well as the level of awareness of the value that design services can contribute to their competitive edge. The Retail sector, in particular, has the demand for, and therefore matches, the offering of product, graphic and brand design, as illustrated in Figure 54. The demand for the more sophisticated and abstract design forms of service design, systems design, and design-thinking consultancies still needs to be developed.

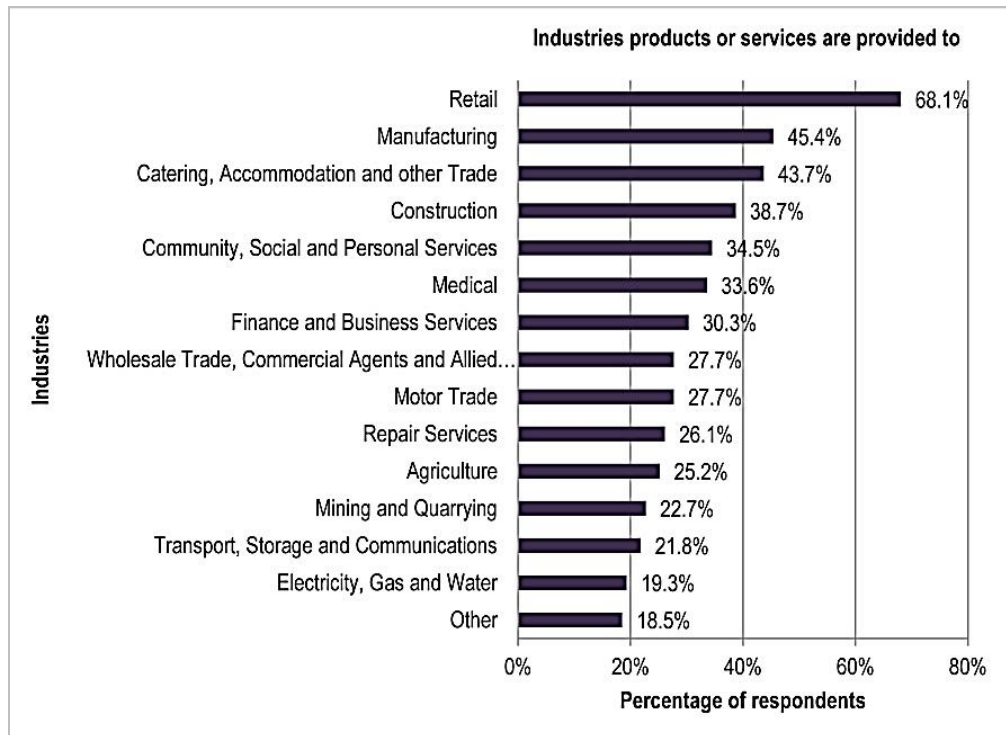


Figure 55. Industries to which design products or services are provided [Mthente 2012]

## 2014 – A targeted survey

In 2014 Creative Cape Town ran a survey targeting the mailing list for their Design Dialogues talks, to form a profile of attendees (CCT 2014). Again this was insightful. Of the 300 individuals responding, many were interested in further education, short courses and workshops for business growth and the creative arts, they indicated the need for mentors and financing, collaboration and information, and owed to having stable employment, i.e. they remained in the creative sector. 62 Percent had university or national diploma education; 47 percent had worked in the creative sector between 5 and 10 years and 35 percent for more than 10 years; 63 percent were under the age of 34; and the top three creative sectors for employment were design, communication and visual arts. 30 percent of respondents had worked abroad, and 19% came from the rest of Africa or another continent.

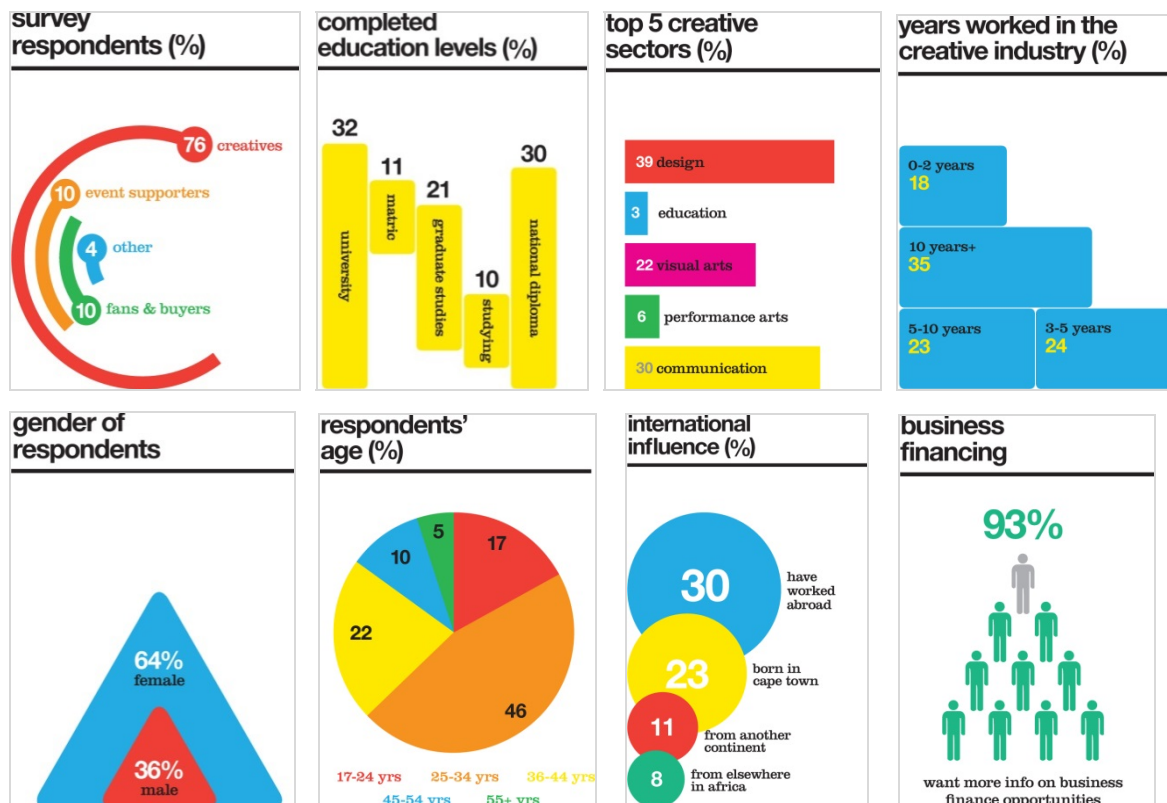


Figure 56. Survey results (CCT 2014).

These figures, although representative of those interested in one particular recurring event, contribute towards making the design sector more tangible and flesh-and-blood.

## 5.4 Maturity of the Western Cape Design Sector

The Western Cape Design Strategy evaluates the value of design by industry as just above Perceived Non-design, and at the level of Styling. A deal of education needs to be done to achieve recognition for Design's contribution to Process, Innovation, and Strategy.

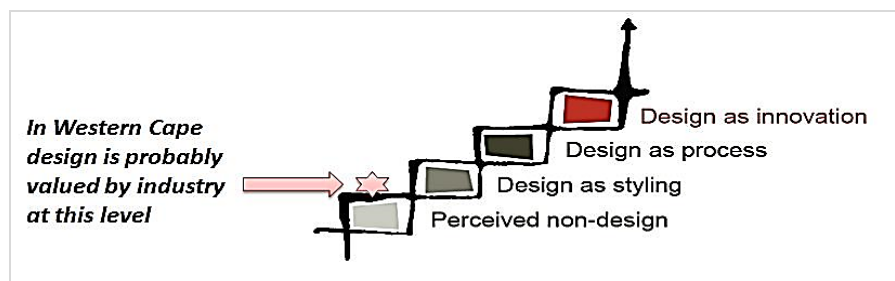


Figure 57. Value and Use of Design in the Western Cape, measured by the Danish Design Maturity Ladder (WCPG 2013,).

Despite the undeniable bustle of design activity in Cape Town – also including design expos, publications, and design education, (more further on), the level of design understanding among the general population in all probability matches the perception of industry - somewhere between non-



design and design as styling. In the context of the Design Ladder, a Culture of Design is yet to be developed. However, in the context of a neoliberal 'culture of design' discussed in Chapter 2, design is firmly embedded in the public mind, linked to consumption and freedom of choice, rather than sustainability.

## 5.5 The size and impact of the Western Cape Design Sector

The Western Cape Design Strategy, extrapolating from the Mthente Report to determine the size and value of the overall design sector in the Western Cape, also accessed a number of other information sources. These conservatively suggest that there could be between 56 000 to 80 000 people working in this sector (Mthente 2012, 100). As a percentage of the 5.8 million residents in the Western Cape, and the 3.7 million residents in the City of Cape Town (Census 2011), that equals 1.3 percent and 2.1 percent respectively (in comparison to the nearly 20 percent of Helsinki residents involved in design).

Based on 2012 figures placing the design industry's contribution to national GDP at 2.8 percent and its contribution to employment at 3 percent, it was conservatively estimated that the Western Cape design sector could be contributing R13.4 billion (US\$1 billion/€89 million) annually (CCDI 2012, 100).

The UN has identified Design as the "... strategic choice for reinvigorating economic growth, employment and social cohesion" (Mthente 2012), and -

... there is a yawning gap between the creative industries of Northern and Southern countries and developing countries are failing to harness the potential of creative businesses to contribute to socio-economic development. Africa, in particular, is underutilising its creative potential.

Mthente 2012

### To draw some comparisons:

Singapore, high on the list of wealthy countries, with a well-supported design industry, experienced a growth in that sector of 7.5 percent, above its economic growth rate of 5% from 2003 to 2005, contributing over US\$2 billion / €1.8 billion / ZAR27 billion (to GDP in 2004, with an employment of 32 677 people).

A UK 2009 study identified the design sector as the fastest growing sector, with employment at 232 000, and an estimated £11.6 billion (US\$18 billion / €16 billion / ZAR240 billion) contribution to GDP.

Global trade from the design sector has grown dramatically in the recent past (14 percent from 2000 to 2005), equalling US\$592 billion (€524 billion/ZAR7896 billion) in 2008.

*Mthente 2012*

Clearly there is much potential in the application of design as a contributor to economic growth. The use of design in the social and community sphere is yet to be explored; design services need to be paid for, and the question is, would government be willing to invest extensively in high-quality design

services to address critical areas, such as government-to-citizen interaction regarding health, education and basic services, urban regeneration, liveable neighbourhoods, public space, transport, and social and economic equity.

## 5.6 Design Education and the Skills Gap

Before 2010, design was introduced as part of a Further Education and Training course (FET) into some Western Cape schools through a Woolworths-sponsored design curriculum, called *Making the Difference through Design – daily* (DEFSA u/d). The course was written by design



Suné Stassen | *Making the Difference through Design.*  
Facebook.

educators Suné Stassen and Seton Vermaak, and included the history, theory, and practice of design. Subsequently further course material was produced and published by Future Managers for grades 10 to 12 (Future Managers u/d). This was certainly progress. However, design is not accepted as a qualifying subject (as is Mathematics and Languages), to enter university studies, and pupils are often discouraged to continue the subject.

Post-matric, a range of design disciplines are offered at close to 60 educational institutions in the Western Cape (WCPG 2012, pp 54-75), the foremost being the Cape Peninsula University of Technology, offering degrees in industrial, graphic, interior, surface, fashion, jewellery, architectural design, and town and regional planning. UCT also offers courses in urban planning, urban design, architecture, landscape architecture, engineering, and fine arts (through its Michaelis School), while Stellenbosch University offers courses in visual arts (which includes fine arts, jewellery and visual communication design), town, regional and development planning, as well as engineering. Dewar and Louw (2012) maintain that universities continue to teach out-dated practices. Although there is some attempt at forming inter-disciplinary schools in these professions, silo-teaching still occurs, with crowded curricula, and no real attention being paid to the current international problem of urbanization and the urbanization of poverty; nor to the examination of ecological issues and pressures (Dewar & Louw 2012).

At the Premier of the Western Cape's Skills Forum in October 2013, research into the design sector, conducted by Kaiser EDP for the province, indicated the weak links in the education-to-market

feedthrough. The challenges identified were lack of widespread, high quality and inspiring school-level exposure to design, design intelligence and design thinking; design was not recognised as a viable career for learners; there was little integration of design thinking in non-design subjects; and limited co-ordination and synergy existed between tertiary institutions (WCPG 2013).

## 5.7 Shows and Publications

Over the years, Cape Town has become home to a number of outstanding design and lifestyle shows, drawing thousands of visitors and buyers, such as Design Indaba Expo, Decorex Cape, Kamers vol Geskenke, the Homemakers Expo, Good Food and Wine, Baby and Toddler Expo, and others. Each show targets a different facet of the market, and each show incorporates a different aspect of design. Their contribution towards building an appreciation for good design cannot be underestimated. The purpose of the expos is to showcase lifestyle products (manufactured by hand or machine) and create platforms for retail activity (and by implication encourage job creation). They are frequented by citizens with some buying power. The shows do not address challenges for homemaking, placemaking and living faced by roughly half of the population of the city.



*A selection of design and lifestyle shows offered to consumers in Cape Town. (relevant websites).*

Cape Town is also home to publishers of elite lifestyle magazines with national distribution, such as Elle Decoration, House & Garden, House & Leisure, Visi and Idees (Afrikaans) – all with strong links to the retail market and dependant on advertising revenues. Architectural magazines cater for that



speciality interest, while the Design Indaba magazine is probably the only channel reflecting a wide and inclusive approach to design application. Most of the publications have an online presence.



A selection of design and lifestyle magazines, published or available in Cape Town. (relevant websites).

## 5.8 Museum

Cape Town does not have a dedicated design museum. But by 2017 it will have a Museum of Contemporary African Art. British architect Thomas Heatherwick's designs will transform an historic grain silo on Cape Town's Waterfront, to house the Zeitz Collection, gathered over 25 years by Jochen Zeitz. This will represent the largest collection of African art in the world. The re-design of the building, inspired by the shape of a mielie kernel, will transform this huge cavernous space into 80 galleries, a number of classrooms, a tea-room and restaurant, and event spaces for as much as 5 000 people. Although an art gallery, the building itself will be a design icon (IOL 2014).



Concept of the foyer of the Zeitz Museum of Contemporary Art Africa by Thomas Heatherwick. [futurecapetown.com](http://futurecapetown.com)

## 5.9 Geographic locality

Much of the activity of the design community – workplaces, gatherings, talks, shows and expos, SPVs, also the campus of the main academic design institution – takes place in the central city, and can be pinpointed to particular areas within the city.

Before 2010 there were plans to establish a design district called The Fringe in the east of the central city, covering a few blocks of the previous District Six (WCPG July 2009). This was a site of forced removals of nearly 60 000 people from 1968 onwards, and a politically-sensitive area. Activists for District Six objected, particularly to the name, as it suggested marginalisation. The formal plans were then dropped.

However, there is already a critical mass of activity in the area: the CCDI is based in Barrack Street with the Fashion Council; downstairs a previous bottle store now serves as a gallery, and a pop-up sales area for ‘Thursday open nights’; across the road a cluster of design businesses has sprung up in 75 Harrington Street; the Fugard Theatre is around the corner; District Six Museum is close; the Book Lounge is up the road in Buitekant Street; and students from CPUT visit the CCDI idea-to-prototype laboratory frequently. There is already a buzz of networking and collaboration, enough to create the creative, innovative, vibe of a design district.

Woodstock, also close to town, is another focal point for creative industries: craft-artists, graphic art companies, industrial designers, galleries, boutique shops. A number of old buildings have been ‘saved’ and renovated; and the Biscuit Mill is a favourite tourist stop-over, also offering a vibrant Saturday morning market.

The City of Cape Town, already famous as a tourism city, has set itself the task of positioning itself as a knowledge-economy city, a design city, a creative industry city, to maintain relevance in the face of fierce competition for foreign investment, and as a distinctive base for economic growth. This follows the trend set by Richard Florida’s 2005 *The Rise of the Creative Class*, and Charles Landry’s 2008 *The Creative City*, highlighting creativity and innovation as essential elements of successful city economies (Kunzmann, 2004: 383). As Zayd Minty, previous CTP’s Creative Cape Town programme director, commented during the WDC Bid process:

It’s also about growing a common vision for Cape Town as an inclusive, innovative, entrepreneurial, sustainable and African city. In many ways, Cape Town has embodied the theme of “Live Design. Transform Life.” for more than two decades already. Cape Town has in particular begun to be seen by many as a city of inspiration and has begun to shine as a creative city. Through the many processes that

design embraces, we are therefore rebuilding, reconnecting and repositioning ourselves as a city – and these are important themes that run throughout our bidding process and into the future of design in this city.

Koblitz 2011.

However, the geographic spread of design activity does not embrace the whole city. Andrew Boraine in 2009 contrasted the rich concentration of creativity in small areas, to the vast depressing scene elsewhere: “In Cape Town, there are pockets of incredible creative people, ideas, companies and organisations ... but there are large chunks of the city which are distinctly uncreative, uninnovative, conventional, boring and stereotypically designed” (Wenz u/d).

Wenz in a 2009 article, highlights the narrowly focussed relationships within the design community:

The relations of the creative industries stakeholders often seem to be more about the interaction between one another within the scene but not so much the interaction with their surrounding community structures. The popular term ‘creative city’ is therefore – at least with regard to Cape Town – exposed as an overgeneralization, as the discourse never really covers the entire city area but considers cultural and creative clusters, quarters and districts and milieus within it. Therefore it can rather be described as a city with a number of creative places and milieus.

Wenz u/d circa 2009.

This insularity does not go unnoticed by critics of the ‘establishment’ (for the design community - though probably wishing to embody critical enquiry - have by now become part of the inner city establishment).

In a blistering blog (Appendix H) a debate presented by CTP in The Assembly in Harrington Street on ‘Including Cape Town’s citizens in WDC projects’, was attacked as an “unrelenting tirade of patronising, racist and exclusive sermons” - a meeting, which was not representative of Cape Town’s population, neither by race or by income-group (Rawoot 2014). The discussion did not touch on real issues in the townships, of unsafe areas, crime and violence, poor health and education amenities and services, transport challenges, economic exclusion and isolation. “This kind of conversation ... ignores the structural dynamics against which poor people had to struggle daily while it propped up the middle class” (Rawoot 2014).

This was one of many comments to her blog:

I’m a young adult 23 year old. Every day I take a 3rd class train to campus. I write, read & sketch in the train. I’m writing a book called ‘war against the beast of cape town’, it’s about time the youth of cape speaks out! ... This world design capital is a fashion statement - after the event then how are people going to assemble? Therefore I don’t praise events, it’s only people in the community who can change things around.

Uriah D D Cloete 5 March 2014.



The many blog-comments (Appendix H) revealed the deeply-divergent complexity of Cape Town society. In a complicated matrix of variables, nothing is simply the one or the other, without being qualified by counter-considerations. Support for, and opposition to, came from surprising quarters.

## 5.10 A 'Space' to contribute

In relation to the Cape Town Design Community, the question was asked: Is there a 'Space' within which Design and design thinking can contribute to the overall sustainability of Cape Town?

The design sector in Cape Town finds itself facing a number of conflicting considerations:

The historic legacy of Design in Cape Town has probably engendered deep distrust in a large number of the city's inhabitants. Political-economics and Design became so intertwined that it would be hard to disentangle. Where outcomes were disastrously unethical, could one talk of 'good' design, a job well-done?

Disenchantment with Apartheid paved the way for neoliberal economic implementation, which segregates by income and expenditure, and has entrenched a design culture equating Consumerism and Capitalism to Democracy (Campbell 2008). By this definition, thousands of poor citizens are 'on the outside' of Democracy, hence the deep political unrest and protest actions.

Cape Town (but Who of Cape Town?), would redesign a new creative, welcoming, and integrative face to break with its reputation of racial and spatial segregation (but to attract who: Investors? The Creative Class? Tourists and shoppers? Refugees?).

Serving the well-healed forces of society (the corporates, the market, the city-shapers, the developers), Design has acquired an elitist connotation, difficult to relate to by the man on the street. Design needs a profound image transformation to be seen as a competence in the service of all citizens.

There is a pressing need to design sustainable environmental solutions to production, transport, construction, energy, waste disposal processes, and urban form, to mention a few.

These considerations constitute extreme levels of complexity. If designers would immerse themselves in these cross-cutting forces and demands, they would find that, beyond design thinking, systems thinking is a required skill.

## 5.11 Concluding remarks

With such a rich accumulation of passionate individuals, design-focussed activity and media, educational resources, and political will, Cape Town is very well placed to establish itself as a 'design city'. Beyond motivating the business sector to buy design services, and inculcating a design thinking ethic into government structures and procedures, the challenge is to develop a design culture and shared values that will touch every part and citizen of the city, to the urban edge.

Did the design community affect the choice of WDC 2014's slogan and approach? It is safe to say that the presence in the city of these designers and their design work gave the City the confidence to bid for this designation in the first place. It is also safe to say that, judging from the extreme excitement and enthusiasm expressed by the design crowd that day on 26 October 2011 when Cape Town was declared WDC 2014, designers felt it was their opportunity to shine, for their contribution and industry to be acknowledged.

The Bid Book was created within Cape Town Partnership, by a number of authors, and with the input of a number of design thinkers and leaders in the city. The resulting slogan for World Design 2014 can only testify to a high awareness of the contradictions within the city, and the need for sustainable solutions.

Members from the design community and other sectors served on the board of Cape Town Design, and certainly influenced the approach of the programme. As will be pointed out in the following chapter, the focus of what was invited and showcased during the year had to be shifted from 'the pretty to the gritty' (paragraph 6.2). This can be attributed to the board having a wider perspective of city realities and wicked problems – and the potential of design to meet the challenges of a 21<sup>st</sup> C African city.

Design maturity, I would like to suggest, is therefore much more than progressing up the Design Ladder. It is more than how a designer, private sector business, government or the citizenry view Design – 'maturing' from non-design, to design as styling, to design as process, to design as innovation and strategy. Design maturity should also reflect the responsibility for the outcome of the design action. Design maturity should reflect one's consciousness and commitment to design solutions that do not harm the planet, empower ordinary citizens in the fullest sense, and lastly keep the markets functioning, without feeding greed.

For designers to play a more meaningful role in society, their focus needs to shift from the consumerist and waste economy, to embrace the new imperatives of social and environmental sustainability. In all probability they would need supplementary training to broaden their scope of understanding – particularly in the transdisciplinary fields of sustainable development, sustainable cities, leadership and ethics, complexity and systems theory, globalisation and applied economics. In a participatory environment, they would need to be skilled in design thinking, co-design, facilitation, and coproduction. They would need to question the ‘habitus’ – those aspects of context that one has become so accustomed to that one can almost not imagine an alternative way of doing.

But who has the time, while designing a label for canned fish (to persuade consumer choice) – and working to a tight deadline - to track whether the fish were caught by slaves who have been robbed of all choice?

Could Design and designers affect the structure of a globalised neoliberal political-economic system, which prolongs and entrenches polarisation between the wealthy and the poor? Political economics is not necessarily familiar territory to designers from any discipline.

If, in our current time, the world is caught between the end of the 4<sup>th</sup> technological revolution, the mid-point of the 5<sup>th</sup> technological revolution, and the start of the 6<sup>th</sup> technological revolution – as is Cape Town – then the varying values and focal points of each period will be reflected among the members of the design community.

What is called for is a Movement – a new design movement that bravely starts and gains momentum, until there is a critical mass of opinion. The language is all there – design for need, responsible design, user-centred design, co-design, human-centred design, universal design, participatory design, design for sustainability, biomimicry, coproduction, creative cities, just cities, inclusive cities, resilient cities, sustainable cities, new urbanism, liveable cities, eco-cities. The language needs to be unified into one vision. It needs to come from designers themselves. They – united - as creatives/citizens/voters should be demanding ‘compliance’ to full sustainability from government and private sector.

A design culture focussing on sustainability could bring about a sustainability revolution, acting as an agent of reform (Fuad-Luke 2009). A design activism is needed, which is “not a boycott, strike, protest, or other political act”, but an intervention in our very livelihoods, in which design is already

embedded (Markussen 2013). For justice to have a chance “... the powerful have to yield both political and environmental space to the powerless”; post the ‘age of environmental innocence’, power should be included in every debate on nature, and nature should be included in every debate on power (Sachs 2002:19).

The concept of coproduction is particularly challenging, as it shifts the traditional power relationship between the state and the poor, and empowers the latter towards self-management and local control. Such an engagement is beyond mere participation, and the paths of negotiation would of necessity be ‘complicated and messy’ (Albrechts 2012).

Between the design community, city management and the developmental needs of civil society, a ‘Space’ needs to be created, by the City, for designers and communities to contribute meaningfully. Designers need to be empowered to operate in this ‘Space’. Creative solutions could encounter resistance and any number of obstacles - institutional, regulatory, silo-locked procedures, vested interests - which would limit their contribution. The city would lose out on the lateral thinking and problem-solving abilities of its trained creative thinkers. It could be that the market-driven consumerist economy is a much more comfortable space within which to engage as a designer, than the highly politicised developmental arena.

The next chapter will follow the approach, rollout and results of Cape Town’s World Design Capital 2014.

# 6 Cape Town – World Design Capital 2014

## Introduction

This chapter explores the theme of Cape Town's World Design Capital bid, the process of implementation, a few of the projects, and the known outcomes by the end of 2014.

### 6.1 The City of Cape Town's Bid for World Design Capital 2014



*'Yellowing' the city. (CT2014).*

In 2011, under the leadership of the Cape Town Partnership, and with the intention of positioning Cape Town as a beacon of creativity and innovation (CCT 2009), the City of Cape Town submitted a Bid to be considered by the International Council of Societies of Industrial Design (ICSID) for the designation of World Design Capital 2014, along with 53 other countries. In July 2011, three cities were shortlisted, and the ICSID panel paid site-visits to Dublin, Bilbao and Cape Town (WDC2014). Momentously, on 26 October 2011, Cape Town was announced the winner, and declared World Design Capital for 2014. In June 2012 the formal agreement was signed between the City of Cape Town and ICSID (CT2014 2013). Cape Town had 2 years, since the announcement in October 2011, to plan and promote a year-long program to their citizens and to the world.



*29 June 2012. Cape Town was officially appointed World Design Capital 2014 with the signing of the Host City Agreement by the Executive Mayor of the City of Cape Town, Alderman Patricia de Lille, and ICSID President Soon-in Lee (CTD u/d).*

The 465-page Bid Book delivered to ICSID in March 2011 presented the main theme as '*Live Design. Transform Life*'. Although reflecting many examples of industrial product designs and inventions by Capetonians, it also reflected a number of urban designs that were improving the lives of communities - such as the Violence Prevention through Urban Upgrade walkways and stop-over community buildings in Khayelitsha (VPUU) (see Appendix E), the Bio-Diversity Park in Green Point, and the upgrading of the Percy Bartley House for boys in Woodstock.



*Percy Bartley House for boys transformed from a derelict, sad building to one of bright colour and hope – a project which represents Cape Town's theme Live Design. Transform Life. The writing says: You are searching your world for treasure. The real treasure is you. (Photo: Rowan Pybus, Makhulu Productions).*

*The new Bio-Diversity Park in Green Point – now supplied with water from Table Mountain, via the old waterways. (Photo: Bruce Sutherland, City of Cape Town).*



A significant portion of the Bid focused on the socio-political realities of the city – one of the most spatially and socially divided cities in the world, with one of the highest Gini-coefficients. The Bid used as one of its sub-slogans: *Separated through Apartheid. Reconnected through Design.*

Contemporary Cape Town is a tale of two cities: one a postcard narrative of wild beauty and sophisticated cosmopolitanism, the other a story of poverty and urban degradation. What connects the two realities are its four million inhabitants, who share the same hopes, depend on the same resources and whose future prospects are inseparable.

CoCt WDC2014 Bid Book March 2011.

The bid set out to appreciate and activate Cape Town's talented design resources, channeling it towards dealing with the city's colonial and Apartheid legacy, and the huge imbalances prevalent in the city. Design and design thinking were considered and presented as valuable tools towards dealing with this negative legacy. Zayd Minty, the then Cape Town Partnership's Creative Cape Town programme director, explained:

"Bidding for World Design Capital 2014 is our city's opportunity to use the energy of our present, to reimagine and reposition ourselves as a city that can use design to overcome our



past, reconnect as people, and take us into a new future – a city poised to make an impact economically and socially. Thus the theme ‘Live Design. Transform Life.’

Koblitz 2011.

In an interview published in the Cape Argus on 8 April 2011, Professor Mugendi M’Rithaa from CPUT expressed this viewpoint:

... we should look at ... Cape Town ... being part of the ‘majority world’. Cities that have won in the past were those that are part of the developed world – and yet those cities form less than 10% of the global population; they are part of the ‘minority world’. Far more relevant today is where design is heading for the other 90%. The entire global trend in design today is changing towards socially conscious design, and we are already, as a city, in complete alignment with this. In many ways, our bid could be seen as a template for bids in the future.

Koblitz 2011.

This was acknowledged by Martin Darbyshire of ICSID:

Design needs humanity: it needs to offer real solutions for real problems. Cape Town has demonstrated a deep understanding of this in its bid by using the World Design Capital to change the legacy of design in its city. Social transformation precedes economic transformation and Cape Town put design in the centre of the solution for social transformation.

CT2014 2013, FAQ.

## 6.2 Communicating the Bid ‘at home’

While the design community was excited at the prospect of many visitors (i.e. business, sales, networking with other designers, more tourists), Cape Town Design NPC - formed to manage the year-long roll-out of WDC2014 - actively encouraged designers to think in a larger social context, (not the pretty, but the gritty), and of the impact of their contribution to the city as a whole (CCT 2011).

This is what WDC2014 is not, and this is what it is, they said:

*World Design Capital 2014 - what it isn’t.* It isn’t an award. It isn’t an event – and definitely not a mega-event. It isn’t an ego trip – the focus is contribution, collaboration and communities.

*World Design Capital 2014 - what it is.* It’s a tool - to reimagine and reinvent a Cape Town more inclusive of all its communities; to inform our decisions and our decision makers. It’s a deadline – just one year. It’s a designation which could become a movement: a ‘design’ ‘nation’ movement, of design-minded citizens and professionals, committed to making social change in their communities.

“But the real focus of World Design Capital 2014,” said the communiqué, “is the legacy it will leave. If the clock strikes midnight on 31 December 2014 in Cape Town, and we are left unchanged, then we will have lost, not won, the opportunity to be World Design Capital 2014” (CCT 2011).

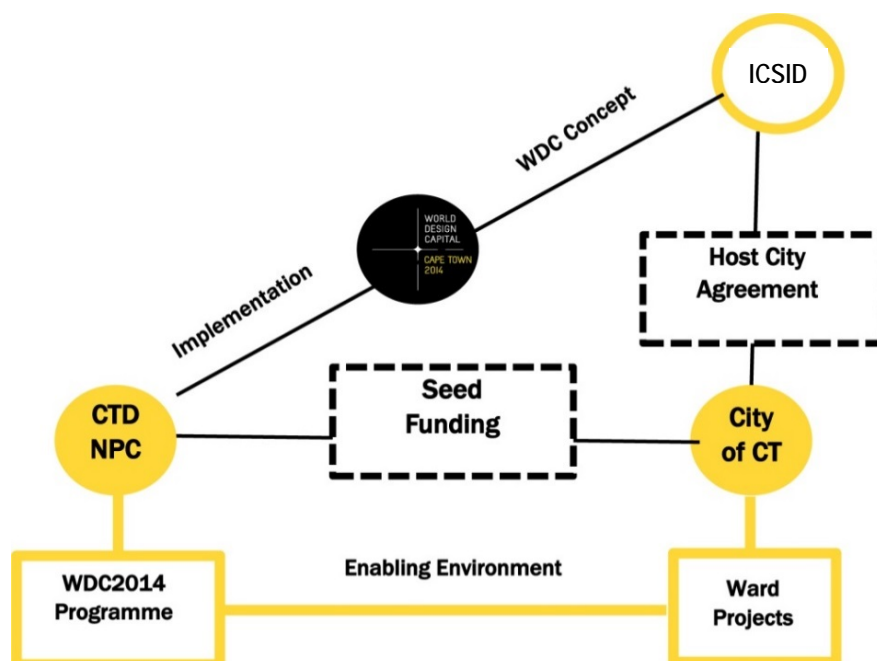
### 6.3 The City adopts design

Six signature events are part of the Host City Agreement with ICSID. The City of Cape Town then established a not for profit company, with seed funding - Cape Town Design NPC, to implement the agreement, and with a board consisting of government representatives and multi-disciplinary experts. Their clear brief was that the year-long program should align with Cape Town's vision of bridging historic divides and repositioning the city for a sustainable inclusive future, through design (WDC CT 2013).



*The Executive Mayor of Cape Town, Alderman Patricia de Lille, officially opening the call for World Design Capital Cape Town 2014 submissions.*  
[www.capetown.travel](http://www.capetown.travel)

In addition the City of Cape Town created an in-house World Design Capital department to introduce design and design thinking within the municipality, and to manage certain projects, such as the Ward co-design projects. The city committed ZAR60 million (US\$4.5 million / €4 million) toward the operation of the implementing body, Cape Town Design NPC, as well as its in-house design department.



*Figure 58. The relationship between ICSID, the City of Cape Town, and the implementing body, Cape Town Design NPC. (CTD 2014).*

The City's own programmatic contribution towards WDC 2014 was two-fold: on the one hand, a bottom-up approach, through its 111 citizen participation, co-design, Ward projects and on the other hand, a top-down approach, showcasing 77 city projects – some new and some existing, but redefined in terms of design in their *Designing our City Together* publication (CoCT 2014).

As design has not been a regular city discourse in the past, and certainly not in municipal corridors, the concept had to be researched, brainstormed and agreed upon. Complexity characterises most of what the city is faced with – situations which are dynamic, ambiguous and contradictory, uncertain, with information overload, dense social systems, convoluted interdependencies, moving targets, and wicked problems. The managerial system's inherent weakness was an inability to understand the levels and nuances of complexity it faced. According to Richard Perez, the then newly appointed director for the World Design Capital Department in the City of Cape Town, (interview in Appendix I), this reflected the Law of Requisite Variety<sup>14</sup>, which translated, means that the level of complexity was greater than the level of competence; and unequipped managers could not manage the system (Perez 2012). Design thinking was a tool and methodology that could equip people to work in highly complex situations – in teams, filtering through diverse inputs and much information, with the greatest value residing in the process, which is by definition participatory and co-design.

Cape Town was the first World Design Capital city to appoint an industrial designer and design team members on its staff to promote design and design thinking within the city's mechanisms, services and systems. This was a bold move, politically opposed, but the only way that WDC could leave a legacy in the on-going project to transform the city.

Perez viewed the designation of World Design Capital as much more than an event or project – rather it was a vital opportunity to intervene in the city's 'business as usual'. It would be his and his team's task to introduce design thinking through the different layers of management and execution in the municipality, and to encourage cross-silo problem-solving (Perez 2012).

Design thinking was to be introduced into the city's operational units, as well as embedded into the systems and procedures for the roll-out of infrastructure and city services, and for consultation with citizens. The accepted design approach for the City then rested on three concepts inherent in design thinking, reflected in Table 19: user- or human-centered practices, collaboration, and the process of creative thinking.

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<sup>14</sup> The law of requisite variety was proposed by Ashby (1958a), and states that: "Control can be obtained only if the variety of the controller is at least as great as the variety of the situation to be controlled" (Skyttner 2001).

**Table 19. Design thinking practices**

User- or human-centered practices	Who is the end-user? Is this their preferred solution? Empathy. Wide research and observation, stakeholder needs and values.
Collaboration	Engagement. How do we know what's best for a community? We ask them. Co-creation, with multiple perspectives.
A process of creative thinking	Emergence, gathering information, idea generation. Analysis. Narrowing the options down. Advancement of ideas through prototyping, making linkages, testing and learning – 'safe' spaces need for this.

*Perez 2014.*

To gain support from staff at all levels, and show the benefits of the expenditure, the first great obstacle/challenge was to get public officials to understand 'design' in their own language and terms. The in-city education focused on showing people how to use design, also as an effective tool to identify challenges. Over a two-year period, the team focused on the complex challenges presently facing cities – mass-urbanisation, social trends linked to technology, the innovate-to-zero trend, new business models, and more (Frost & Sullivan 2014; Perez 2014).

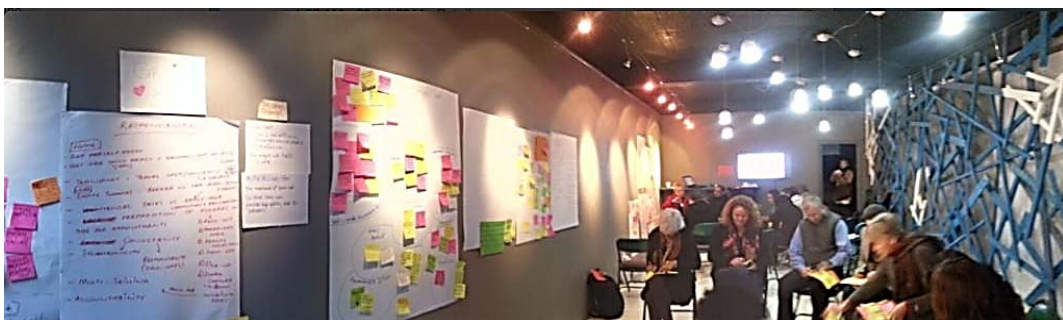
To shift the mind-set and approach of 25 000 employees in the City, with set ways and methodologies, the role of leadership became crucial. The whole-hearted support of the Mayor and the Premier of the Western Cape was critical, if politically charged. In effect, this called for the redesigning of the public servant, stimulating their levels of innovation, appreciative enquiry and facilitation, providing them with 'design tools', and including them within 'design networks'. (Public servants are rather rewarded for enforcing compliance than for creative problem-solving). To understand this process, Perez cited the Design Ladder of the Danish Institute to illustrate the process of moving them from design thinking to 'design-doing' (Perez 2014).

According to the Design Ladder, the Leader provides understanding and support and 'positions' design, to move staff members up the design steps. Along this route the appreciation for specialised design skills are inculcated; the recognition that differently-skilled designers are needed for different situations. An expert designer of objects or communications will not be adequate when collaboration with other designers in a large project is required. At the same time, when facilitation skills are needed, the designer must step back to allow non-designers room for expression (Perez 2014).



Figure 59. Danish Design Ladder, adapted by Richard Perez 2014.

WDC2014 has provided the start of the ‘in-city conversation’ – the results will unfold into the future. And while the city funds significant design events and projects, such as Design Indaba Conference, the Open Design Festival, Cape Town Partnership and the Cape Craft + Design Institute, it is promoting service design, and has tested co-design workshops through its 111 Ward projects, providing: a living blueprint for public participation; examples of transversal projects and design application (vs silos); and contributions from citizens – the process of conceptualising, visual boards, models, voting, emerging principles, facilitated by designers and professional objective facilitators – to inform planning and budgets in the Wards.



Co-Design facilitation. Photo: Richard Perez, City of Cape Town.

## 6.4 Submission of WDC projects



Cape Town Design NPC put out two calls to designers and the public for proposals, closing in April 2013 and July 2013. Proposals were submitted on-line and then selected by a multi-disciplinary team of 38 curators. Projects needed to offer tangible evidence of how design could positively impact the city and improve lives (CT2014 2013).

Four main themes were developed and promoted:

*African Innovation. Global Conversation.* - Unique innovative solutions originating in Africa with global relevance.

*Today for Tomorrow.* - Green, brown and blue sustainability projects.

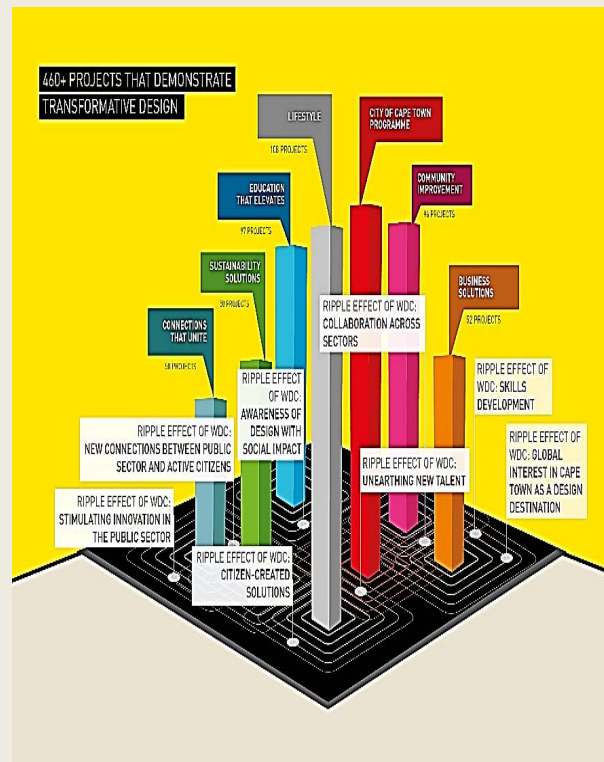
*Bridging the Divide.* - Projects that use design to bridge the divide between communities, between first and third worlds, town and township, advantaged and disadvantaged, the past and the present; collaborative projects that connect high and low tech.

*Beautiful Spaces. Beautiful Things.* - Beautiful objects from our beautiful continent - built, fashioned, created.  
CT2014 2013.

A total of 1 353 project submissions were received, of which 461 were selected as official World Design Capital 2014 projects. The 461 projects were then regrouped into 6 themes, the guiding principle being to identify those key aspects that would build a sustainable city, focusing on improving health, business practices, methods of education, modes of transport, sustainable building, farming, energy, and waste processing methods (Maritz<sup>15</sup> 2014). The City's 111 Co-design Ward projects formed the seventh theme.

**Table 20. Submitted projects grouped into final themes**

Themes	Content
<b>Connections that Unite</b> 50 projects	Transport solutions and IT projects
<b>Sustainability Solutions</b> 58 projects	Urban gardening, local food, energy, waste, water, building materials, conservation, natural environment
<b>Education that Elevates</b> 97 projects	Education on design or matters which design could address, through workshops, virtual platforms, exhibitions, dialogues, conferences, festivals, walking tours, competitions, publications
<b>Lifestyles</b> 108 projects	Festivals, exhibitions, films, performances, public art, shows, publications, showcasing the creative industries, retail platforms, sports and recreation
<b>Community Improvement</b> 96 projects	Innovative solutions for building materials and fittings, housing structures, liveable neighbourhoods, public spaces, the upgrading of public buildings and old factory complexes, user-friendly public services; involving citizens in co-design think-tanks which would impact different aspects of their lives (the City's 111 ward projects)
<b>Business Solutions</b> 52 projects	Business support, marketing platforms, business models, incubators, fundraising mechanisms, design awards and challenges, service design



*Figure 60. A graphic illustration of groupings of Cape Town's WDC projects, with ripple effects (CTD NPC, Maritz 2014).*

<sup>15</sup> Christo Maritz is CEO of Infestation Design Studio; his graphic design studio was responsible for the conceptualization and graphic design of the brand identity of Cape Town WDC2014, the Bid Book, and the initial communications campaign. The studio was again tasked with depicting the many projects, outcomes and ripple effects of WDC2014 for an exhibition in Berlin. Maritz is also on the steering committee of the Cape Town Design Network and the Open Design Festival. As a 'creative' he immersed himself in the WDC2014 project.



The projects found expression in Collaborations, Challenges and Competitions, Conventions and Conferences, Exhibitions and Festivals, Enterprise Incubations, and Workshops and Dialogues, with some of the main events indicated in Table 21. Many other projects were worked out in practical application.

<b>Table 21. WDC 2014 PROGRAMME</b>							
<b>Collaborations</b>							
Danish Design Institute and Frank Joubert	Dutch Dept of Design	Acute Care Surgery Unit and Designers	Shopstar and WDC Projects	Paracon & Shopstar	CTD and Thundafund		
<b>Challenges and Competitions</b>							
SAPO Stamp Design	Ceramics SA	Live Eco Design Challenge	Better Living Challenge	Design 24 Challenge	Future Foreshore and Dept of Transport	Greater Tygerberg Partnership	
<b>Conventions and Conferences</b>							
Design Indaba Conference	Innovation for the Urban Age	Sustain Our Africa conference	Innovation Summit	Design Development & Research Conference	Design Policy Conference		
<b>Exhibitions and Festivals</b>							
Guild	100% Design	Design and Making [the story of food]	Open Design	Architecture August	SHIFT Stellenbosch	Muizenberg Festival	Transforming Cities Exhibition
<b>Enterprise Incubation</b>							
Hubspace Khayelitsha	Philippi Village	Bandwidth Barn	Design Garage	iKhaya leLanga	Clinics for Creative Businesses	Investor Readiness Clinics	The Business of Design
<b>Workshops and Dialogues</b>							
Green Clusters	Dept of Health, with Phillips Design, Netherlands	Platform 6 Design Education	CoCT Co-Design workshops	Design Dialogues	Food Dialogues	WCEDP Exchange Labs	

CTD 2014.

## 6.5 WDC 2014 project examples



### 77 City of Cape Town ongoing city projects and 111 Ward co-design projects

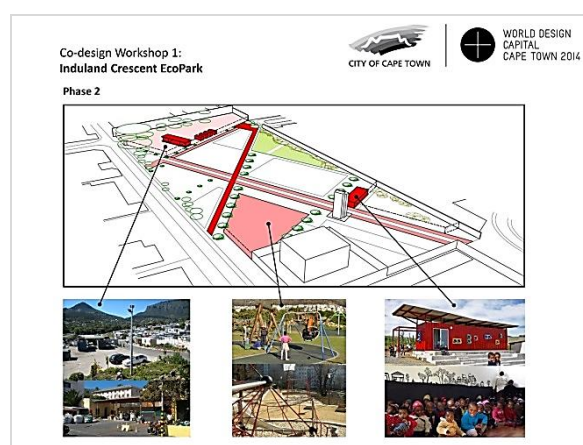
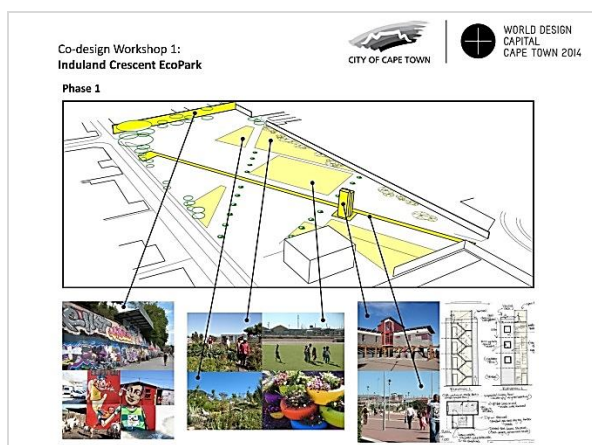
The City held internal brainstorming sessions, evaluating their ongoing projects through design and design criteria – simultaneously an opportunity to introduce and embed these concepts in staff thinking. Of many projects, seventy-seven were particularly selected, as already displaying a high degree of design input. The projects centred round issues of the environment, health, management processes, social development, staff development, utilities and transport, and economic development (by far the largest number of projects) – see Appendix K, a summary of the projects published in the City of Cape Town's 2014 *Designing our City Together*.

✱ In addition, the City launched co-design workshops to be held in its 111 wards, with councillors, citizens, interested parties and designers – to address areas of concern. These were usually identified as communal space or shared facilities which needed to be upgraded, re-imagined or re-created (see Appendix K).

✱ The *Induland Crescent EcoPark* in Hanover Park was one of the Ward Co-Design projects. Well-attended by community members, there was great excitement during the brainstorming and co-creation process. Designers listened and facilitated ideas, which were eventually condensed into solid plans to present to Council.



*The Co-Creation workshop in process. CoCT 2014.*



The roll-out of three phases will take at least two years or more; different units in the City are involved (parks, water, public works, and more); the challenge is to keep the community enthusiasm and vision alive during such a protracted process. This project was not politically opposed.

*Induland Crescent EcoPark plans, Phase 1, Phase 2, Phase 3.*

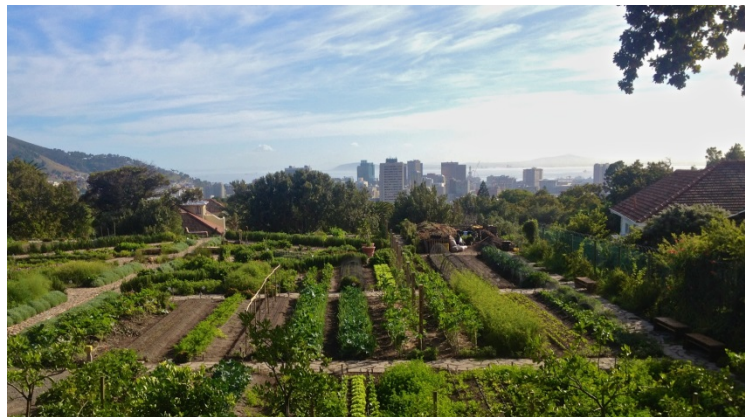


Community gardens have sprung up in many areas, particularly in the townships, *Foodpods* in Philippi being one of the popular and successful examples. Other notable gardens is the *Oranjezicht City Farm*, nestling against the mountain and overlooking the city high-rises and harbour; and the *Company Gardens Vegetable Garden* - part of the original garden of the Dutch East India Company has been restored to grow and distribute vegetables, rather than just reflect indigenous flowers and plants.



MULTIPLIER: Rose Mokosa, known as Mama Rosie to most in Philippi, has found that through FoodPods, she is able to sustain herself financially while providing residents with healthy food. Photo: Armand Hough

*Foodpods, Philippi. Cape Times, 11 February 2014.*



*Oranjezicht City Farm. www.swimgeek.com*



South African Shack Dwellers International Alliance was thrilled to have four of their projects accepted – one being their programme of community-led reconfiguration and spatial design of informal settlements before and after disasters. Specific examples were the re-blocking of the Mtshini Wam and Langrug settlements, re-organising shacks into “clusters” with safer and more dignified public spaces, allowing the City to install basic services. A fourth programme was the Solid Waste Network, a collective of 350 informal waste pickers, who remove 40 – 60 tonnes of solid waste from the streams each month and provides a steady income for unemployed people (SASDI 2013).

<http://www.ikhayalami.org/activities/Re-blocking/>



The CCDI proposed a number of projects which would invest in the future of the city: two were aimed at young people – a design career booklet, and inspirational talks at schools by successful designers - and the *Western Cape Design Strategy*, which aims over the long-term to promote design through shows and design awards, and to support and develop the local design sector, through a



number of projects, most importantly by promoting design and design thinking to be applied as a game-changer in government and private sector.



The *Better Living Challenge* was aimed at developing cost-effective building material and home fittings for low-cost housing, a project which was run by the CCDI on behalf of the Premier's Office. The winners of this competition are being coached through their research and development phases to ensure that their inventions reach the market successfully.



*A Better Living Challenge finalist on display at the Station Forecourt, where passing commuters could have an opportunity to view and chat. Spice4Life website 2014.*



The CCDI also proposed and presented two highly successful exhibitions, drawing close to 30 000 visitors each. The *Make it New* exhibition, displayed for a number of weeks at the Watershed, V&A Waterfront, tracked the historical roots of artistic expression in everyday objects (all crafted by hand), through to the contemporary artistic expression of handmade objects – furniture, soft furnishings, dramatic décor and *objet d'art*. The exhibition created a sense of pride in the quality of local design.

*elledcoration.co.za*



The *100 Bicycle Campaign* invited corporates to purchase a 'share-bike' for the organisation, and a matching bicycle for someone unable to afford one.

<http://qhubeka.org/2013/>





The other CCDI exhibition - *Design & Making [the story of food]* – I was privileged to project-manage.

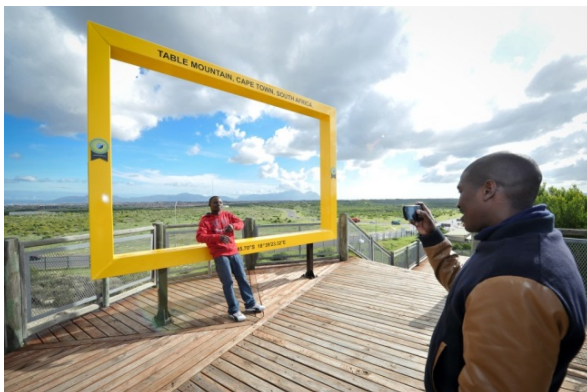
This tracked the storage and preservation of food through the centuries, from beautiful handmade antique storage vessels from the Iziko Museum's Social History Collection - through technological revolutions which changed storage containers to cans, plastic, Styrofoam, cardboard and tinfoil (and waste) - to an exhibit of contemporary handmade artworks, using storage vessels as inspiration. Throughout, the aspect of environmental sustainability could be traced, as well as design solutions - which could create problems - which needed further design solutions. The visitors' book attested to how powerfully these messages struck the many viewers.



[www.petco.co.za](http://www.petco.co.za)



The *Frame Table Mountain* was tremendously popular. Frames were erected around the city, with Table Mountain in the background, the furthest one on Lookout Hill in Khayelitsha. The citizens love to play.



[www.tablemountain.net](http://www.tablemountain.net)



*Nicky's Drive*. Nicky Abdinor drives a hands-free car, operated only by her shoulder and foot pedals. This car was refined in cooperation with the Cape Peninsula University of Technology's Industrial Design department. As a WDC project, it drew attention to the need for universal design and special-user requirements.

[www.nickysdrive.com](http://www.nickysdrive.com)







The *Ukusela Ekapa* - Drink Cape Town in project became a city favourite, because of the simplicity, sense of fun, and intensity of the varied citizen involvement. A hands-on project – unfired clay drinking jars (*ikomityi* in Xhosa) were taken all over the city, and citizens were asked to ‘squeeze’ the jar, leaving their hand imprints, and then to



*Clinics, factories, tourist spots, taxi-ranks, schools, Parliament, homes for the aged, up Table Mountain, on Chapman's drive, police stations, historic monuments... All visited during the Ukusela Ekapa project. "We have squeezed in all 24 sub-councils of Cape Town". Ukusela Ekapa Facebook.*

sign their names and ages on the bottom of the jar. This simple action immediately gave every person a sense of co-creation. The jars were then fired – over 10 000 of them – and displayed at various venues, including Robben Island, and finally at the Castle of Good Hope. Citizens were invited to come and collect a jar bearing someone else's name and imprint, so that a sense of shared creativity would permeate the homes that the jars went back to.



The *Maker Library Network* is a program by the British Council to stimulate cooperation between South African and British designers. It is part of the Maker Movement, and provides books, tools, and the space for dialogue, shared creativity, mentoring, experimentation, and access to an online community of designers. Two Maker Libraries were held in February 2014 – as part of the GUILD exhibition, and as part of the Design Indaba Expo.

[design.britishcouncil.org](http://design.britishcouncil.org)







Citizens from all walks of life rallied round the *Save Princess Vlei* petition. This was a brilliant example of successful citizen action over commercial gain, and focused on the intention of the City to grant shopping mall development rights to a developer on the banks of Princess Vlei, one of Cape Town's treasured natural areas. The negotiations had progressed quite extensively. The petition read: "We, the undersigned citizens of Cape Town, declare ourselves in support of the People's Development Plan for Princess Vlei and object most strongly to the rezoning of the banks of Princess Vlei to allow the building of a double volume shopping mall with close on 600 parking bays" (Princess Vlei u/d).



*Activism to protect Princess Vlei. Princess Vlei u/d.*

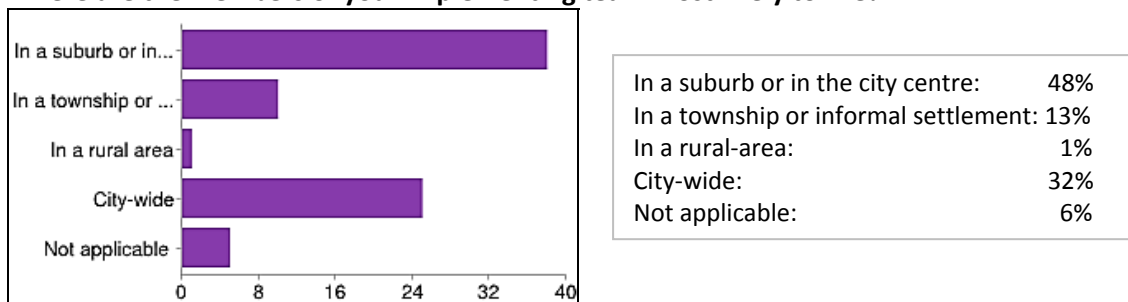
In March 2014, to great joy, the City issued a statement saying: "The City of Cape Town has listened to the community and decided that the proposal for a shopping centre on the Princess Vlei land is inappropriate and will cancel the project. As an inclusive city, we urge residents to work with us to develop an alternative vision for this land" (CoCT 22 Mar 2014).

## 6.6 Outcomes

### Mid-year survey

In June 2014, Cape Town Design NPC ran a mid-year survey with the 461 projects that were part of WDC 2014 to measure the impact. They received 74 valid responses, a 16% response. Some interesting results to the questions emerged (CTD 2014):

#### Where are the members of your implementing team most likely to live?



*Figure 61. Where are the members of your implementing team most likely to live? (CTD 2014).*

Nearly 50 percent of project implementers lived in the city centre or a suburb, while only 13 percent of implementers lived in a township or informal settlement.

### Where do beneficiaries of your project live?

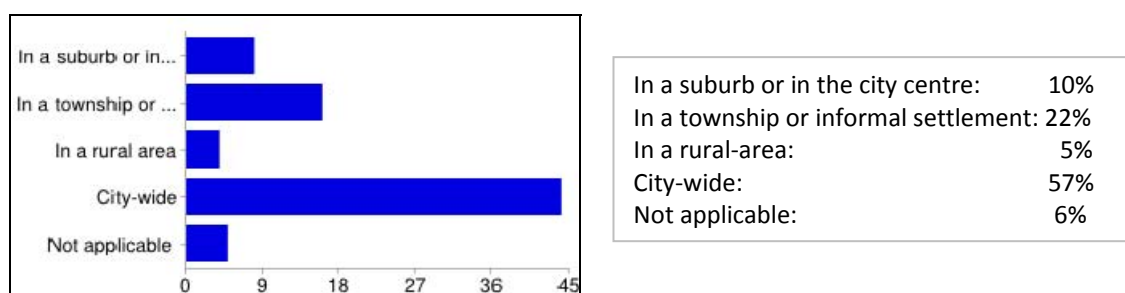


Figure 62. Where do beneficiaries of your project live? (CTD 2014).

More than 20 percent of beneficiaries lived in a township or informal settlement, 57 percent were said to live 'city-wide', and 10 percent lived in the city centre or in a suburb.

### How being in the WDC 2014 programme has helped

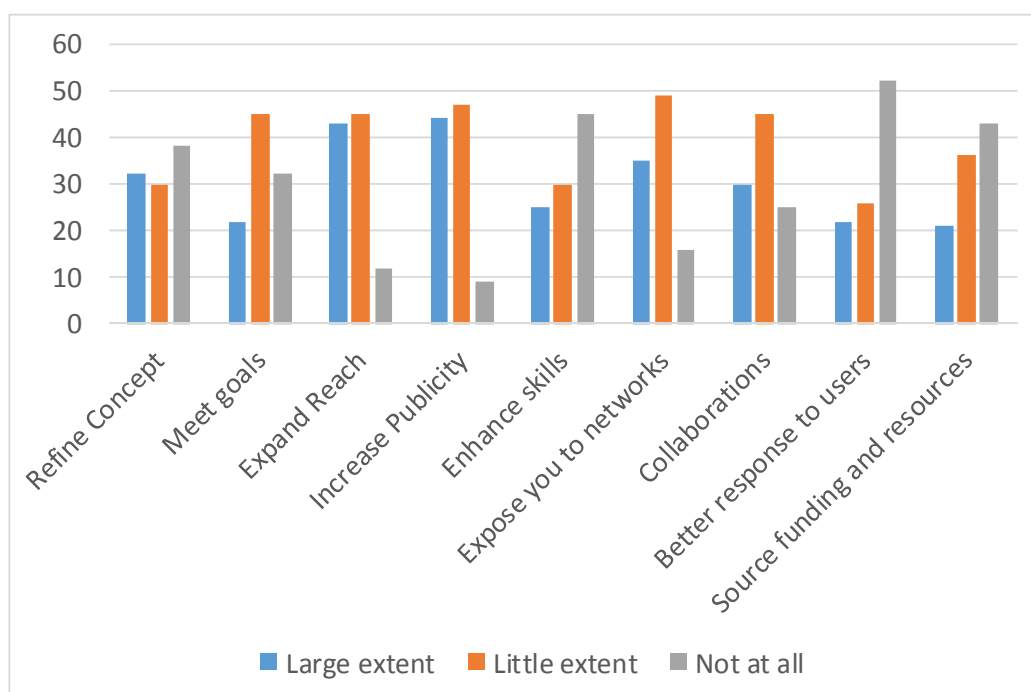


Figure 63. How being in the WDC 2014 programme has helped (CTD 2014).

The greatest benefits reported were increased publicity, expanded reach, exposure to networks, and refinement of a concept.

### Continuation beyond 2014

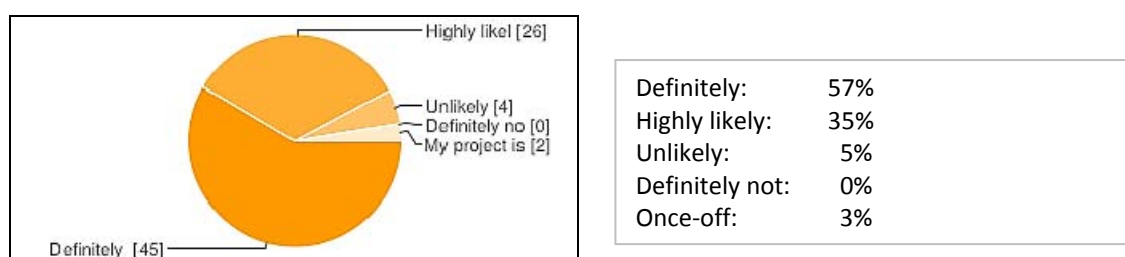


Figure 64. Continuation beyond 2014 (CTD 2014).

Nearly 60 percent of projects reported that they would definitely be continuing after 2014, with 35 percent indicating that it was highly likely.

**Wish for the Legacy of WDC2014:** Participants were asked what their wish would be for Cape Town, post the WDC year. Their responses focused on the continuation of projects and partnerships, that social design for change in city planning be continued, that the city become more accommodating and inclusive with a bottom-up people-centred development approach, and that a dedicated unit be established to coordinate citywide programmes aligned to design-thinking (CTD 2014).

### **Observed impact by November 2014**

Although much of the impact of WDC2014 would flow from the results of the individual projects, varying from short to long-term, by November 2014, the CTD NPC had observed some interesting results (CTD 2014). Much of the WDC 2014 programme had been created by its citizens, with new talent being unearthed, and new skills developed; innovation in the public sector had been stimulated, with new connections between the City and its active citizens; an awareness of design with social impact was created, and design has proven itself to deliver outcomes – design that can make a difference; importantly, Cape Town has been positioned beyond the destination of beautiful beaches and great wine – the WDC 2014 year has given Cape Town creative ‘depth’ (Swartz 2014).

Importantly, there is the realisation that there is only so much that can be achieved in a year. The year 2014 laid a foundation for further development and long-term change. As the Western Cape Design Strategy is rolled out in the next few years, these achievements must be built upon (Swartz 2014).

Cape Town gained global interest, establishing international collaborations such as the Dutch Government’s #CocreateSA initiative with African Centre for Cities; the Nordic trade delegation and Stellenbosch Innovation District/Shift; a new association between Helsinki’s Aalto University and CPUT; South African designers hosted by Design Discourse Austria-South Africa; the American-based Maker Faire presence at Open Design 2015. In addition local projects such as the Future Foreshore collaboration between Transport for Cape Town and the University of Cape Town, and the Greater Tygerberg Precinct (the development of an additional business hive to the traditional city centre) has also progressed (Swartz 2014).

Co-design and design thinking has been introduced through the City's co-design workshops, creating a vehicle for more productive community participation in projects with civil servants and designers. This momentum should be maintained, with service design and design thinking training in the public sector (CCDI June 2015).

These statements and outcomes have been questioned in the press: Advocate Glenn Babb, in an open letter to the press, challenged the investment in Cape Town's World Design Capital project, for which, he stated, '... there was no public participation' (False Bay Echo 2014). He continued to question participation by public scrutiny, and the life extent of the implementing agency, Cape Town Design NPC, stating:

The Design Capital appellation has not brought approval from the underprivileged of Cape Town, despite the claims of the NPC and has had zero benefit for the overtaxed ratepayers.

False Bay Echo 2014.

Councillor David D'Alton responded to confirm that the CTD NPC would not exist beyond December 2014, barring the completion of the close-down audit report. He emphasised that the year had been about -

... making our city use design and design thinking to critically engage with challenges that affect all our residents but particularly those in our poorer communities. The City of Cape Town remains proud to have won this accolade, mainly because at its heart design is about improving the experience, and hence the life, of the individual. Entrenching that understanding and making us appreciate that the individual's experience should inform everything we do is the greatest legacy of this year and our approach has made sure that this legacy will spread itself through a variety of sectors. The project of the World Design Capital will become an operational reality in the everyday work of the City and its partners.

False Bay Echo 2014.

## **Economic impact**

On behalf of Cape Town Design, an economic impact assessment of World Design Capital was conducted by Urban Econ. The assessment found that for every R1 spent of the R60 million which the City had invested in WDC, R2.46 in direct and indirect investment was generated – that is R59.2 million in direct production, and R86.6 million in indirect impact. The economic indicators for the impact are “job creation, production, business sales, gross domestic product (GDP) and household income” (CCDI June 2015). The province had also benefited by R1.11 earned for every R1 spent - thus a direct investment of R25.2 million.

Other results showed that 27 projects started during WDC had garnered capital investments of R17.4 million, and operational investments of R3.1 million. The Crowd-funding platform, Thundafund, had helped 37 projects to raise R1.2 million. The Dutch #CocreateSA initiative drew R10.5 million of

investment into Cape Town. All these had direct and indirect economic spin-offs. Coverage in the media was estimated as worth R245 million (CCDI June 2015).

### **Impact on the Design Community**

There has been a shift in focus which many in the design community have experienced through the World Design Capital year and process. From essentially a market-focus as practitioners, social challenges have become more meaningful and critical, and designers, if commissioned to do so, are very ready to contribute their thinking and creative skills. The design community had also, for the first time, begun to feel acknowledged and valued in the greater economy, rather than marginalised as 'the artistic people' (Maritz 2014, interview in Appendix J).

The emphasis on Co-design had created diverse partnerships in projects, and started to pioneer a different way of achieving results – rather than the antiquated, but still prevalent, silo-approach. This was true for both the City and civil society. The greatest threat was if the emphasis of Design was allowed to cipher off, and there would be a return to 'business as usual' (Maritz 2014).

The most critical missed opportunity of the year was that corporate business had not been sufficiently involved and drawn into the initiative. They had not been exposed to or adopted the benefits of design on all levels of their business, not just object or graphic design. As purchasers of Design, both the business sector and local government were still satisfied with minimum-standard solutions to problems, rather than "functional AND beautiful AND efficient solutions", which require professional design intervention (Maritz 2014).

### **Emphasis on sustainable design**

The diagram (Figure 65) designed by Infestation Design Studio for the exhibition in Berlin, reflected a clustering of the City- and citizen-led projects. Many of the projects had attempted to address issues of inequality, mobility, liveable neighbourhoods, food and water security, education, and care of the environment. If encouraged, the ripple effects could permeate the ethos of the city (Maritz 2014).



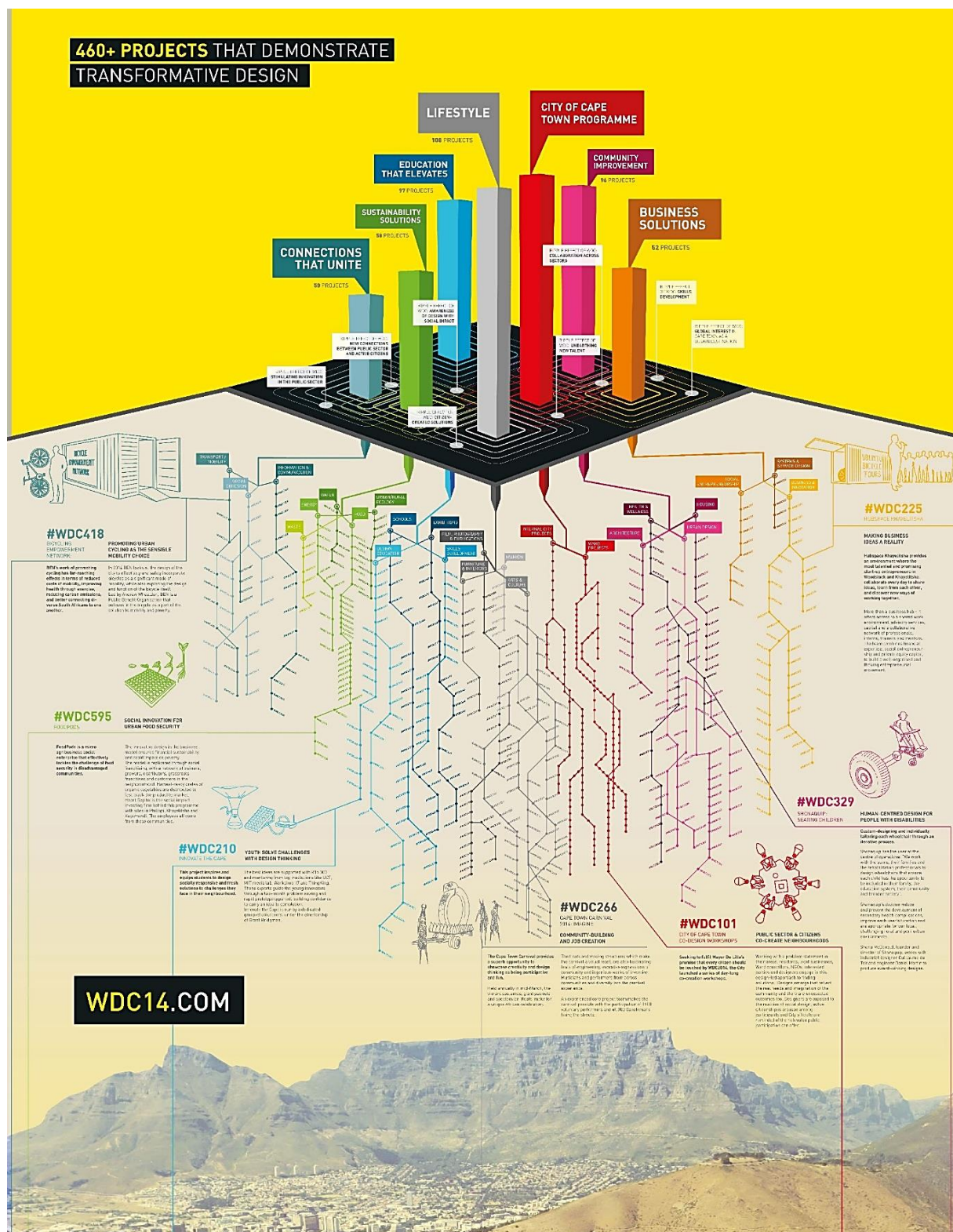


Figure 65. 460+ projects that demonstrate transformative design. CTD 2014.

This observation has been borne out by analysis done for the Design Policy Conference, on 18 October 2014 in Cape Town. It is possible for Africa to do a double leap in both IT connectivity and sustainability, building on its abundance of social goods as a new definition for wealth – interpersonal relationships, community cooperation, and collaborations between endeavours (Manzini 2014).

An analysis of Cape Town's WDC projects according to *what* was being designed, and *how* the design action was carried out, found that the largest number of WDC2014 projects fell in the quadrant of *co-design* and *systems*, indicating a more shared design experience, a greater awareness of designing *with* people when designing *for* them, a user-centred approach, and much more emphasis on ironing out systemic barriers to a life of quality, than merely assuaging the discontent with more 'stuff' (Manzini 2014).

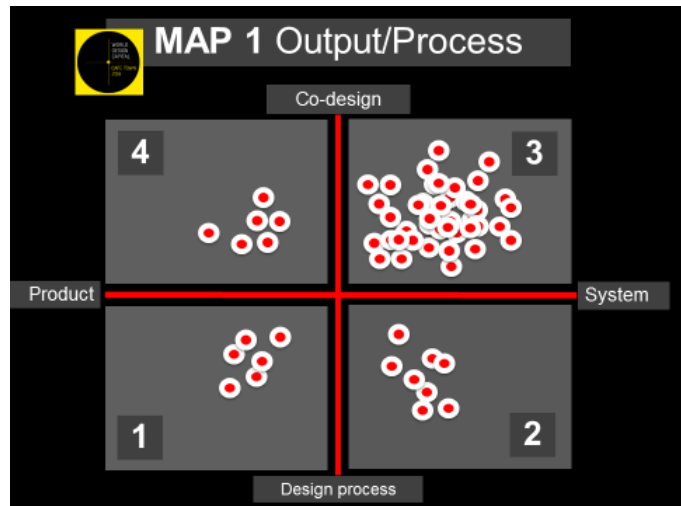


Figure 66. WDC 2014 projects indicated a shift in design methodology and focus (Manzini 2014).

The conclusion was that this echoed the shift from the intense narcissistic Consumerism of 20<sup>th</sup> Century design to the more socially- and environmentally-conscious design ethic of the 21<sup>st</sup> Century (Manzini 2014).

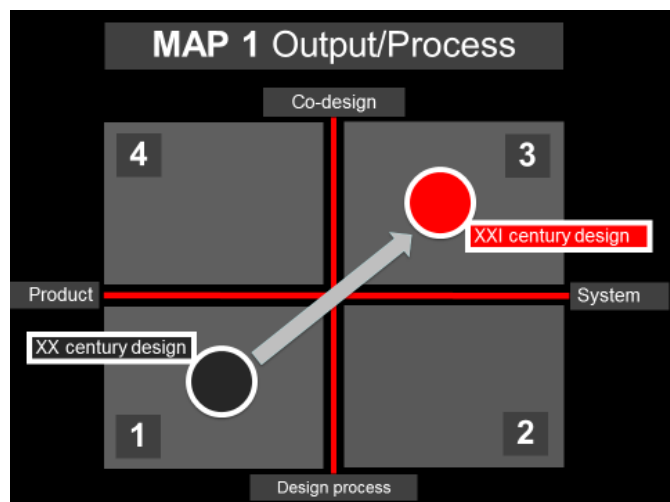


Figure 67. A shift from 20<sup>th</sup> Century design to 21<sup>st</sup> Century design (Manzini 2014).

## 6.7 Beyond 2014

The Western Cape Design Strategy proposes three key programmes, with four key aims in mind.

*PROGRAMME ONE:* To support the local design industry (through seed funding (such as the Design Innovation Seed Fund), creative business incubators (such as 75 Harrington Street), and collaborative creative and exhibition spaces, with particular emphasis on agro-processing, the green economy and public sector spheres).

*PROGRAMME TWO:* To promote the local design industry (through expos, shows, festivals, design awards, and a unique Western Cape design brand).

*PROGRAMME THREE:* To develop the local design sector (a Design Human Capital Forum to run a development strategy, education, working with the four-university consortium in the region, career promotion, a teacher-training programme, after-school problem-solving activities at the MOD<sup>16</sup> youth centres, including design approaches in the Early Childhood Development programmes, and business training for design professionals through the CCDI) (Elk 2014).

This strategy and programmes have four aims.

*AIM ONE:* Design-ready businesses (i.e. able to value and apply the benefits of design).

*AIM TWO:* Business-ready design practitioners (who are often unprepared to run a successful business, or for the daily challenges of profitability, delivery, human resources, and competitiveness in the industry).

*AIM THREE:* Design incorporated into all functionalities of the public sector.

*AIM FOUR:* Involved, informed, design-aware, and design-demanding citizens.

The next ten years would be critical to the implementation and success of the strategy. A phased and carefully monitored plan will be followed to achieve desired results (Elk 2014). The CCDI is certainly an institute to watch.

## 6.8 Concluding remarks

The Bid slogan '*Live Design. Transform Life.*' promised a transformative intervention. Fully cognitive of the city's historic design and political legacy, the Bid was careful to not just reflect the production

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<sup>16</sup> The Mass participation; Opportunity and access; Development and growth (MOD) Programme is a flagship initiative of the Western Cape Government. It contributes to a vision to create a socially inclusive, creative and active Western Cape. Currently 181 MOD Centres provide sport and recreational activities to over 40000 participants from disadvantaged communities and underserved schools. <http://www.westerncape.gov.za/general-publication/mod-programme> - accessed 9 December 2014.

of 'stuff', whether brilliant inventions or just consumer goods – it also reflected programmes and actions aimed at transforming spaces, social interaction, and economic opportunities. Quite glaring in its absence was an emphasis on the environmental fragility of the city.

The Bid was clearly using the WDC opportunity to address historical inequalities and injustices, and the legacies those had left behind. In this regard, Cape Town is not the only Global South city to face those realities – thus the comment from Professor Mugendi M'Rithaa that 'our bid could be seen as a template for bids in the future'. This focus gathers the energy, but would only present a compromised answer to all the critical spheres of sustainability.

The design community had anticipated an opportunity to 'shine', but when the shift in emphasis – 'not the pretty but the gritty' - hit home, they rallied to the cause, 'volunteering' their time and services, at a small stipend, to participate in the Ward co-design workshops. But voluntary work is not a model that can work indefinitely – design skills need to be rewarded appropriately.

The WDC year represented a paradigm shift for all affected parties – for designers in terms of an emphasis on social design; for city managers and staff to allow their everyday procedures to be scrutinised by design and design thinking; for community members to actually be invited to co-vision their own spaces and amenities; for ordinary citizens to grapple with the title of WDC, not sure if they really grasped what it entailed or included; and for political activists to refine their critical skills to position design (an everyday activity) as elitist.

Compared to Seoul and Helsinki (Chapter 3), Cape Town had a miniscule budget – which needed to be cleverly administered. Citizens might have wanted to see impressive city projects, as in Seoul; but the budget had to be spent on the project managers, both within the City and in the implementing body, and essential promotion and organisation. With such a large vision in mind, R60 million was a cut-throat budget.

Therefore the City's strategy to augment this budget with monies already allocated to the Wards was strategic. The Ward co-design workshops in themselves were a brilliant concept – bringing together councillors and City staff, designers and community members around a common purpose. It would be enormously advantageous to embed this strategy in City planning procedures.

The City of Cape Town deserves special honours for being the first World Design Capital to bring a team of design professionals within their operational structures. Unfortunately this unit has now been disbanded. Over a period of a year, would there have been enough input into the different levels, silos and departments of the City to leave a permanent mark; to urge the staff to appreciate, ask for, and insist on high quality design, and design thinking methodologies in their planning processes? A further question is the degree to which City leadership – politicians, managers, and administrators, embraced this different way of approaching problem-solving. Were they themselves willing to be ‘redesigned’, as civil servants? Did they realise that procedures needed to be redesigned, i.e. shifting the focus from compliance, to creative, participatory problem-solving?

One thousand three hundred and fifty three project submissions indicated the degree of public interest. A large proportion of the final 461 projects selected, completed their implementation. Submitted by citizens, selected by the curators, the spread between the different themes represents a relatively good balance between the various issues.

The greatest number of projects fell in the Lifestyle theme (108), possibly still reflecting a pre-occupation with the ‘good life’, although some projects could have indicated a shift to a more sustainable life-style. This was followed closely by Education-focussed projects (97). The City’s Ward projects contributed towards the next focal theme, Community Improvement (96). The next three themes enjoyed even attention; Sustainable Solutions (58), Business Solutions (52), and Transport and IT projects in the Connections theme (50). This theme-spread is supported by Manzini’s analysis of the projects, indicating the shift from 20<sup>th</sup> Century narcissistic Consumerism, to 21<sup>st</sup> Century socially- and environmentally-conscious design.

Citizens can experience positive learning and shifted perceptions through non-threatening, fun activities. The popularity of the Frame Table Mountain and the Ukusela Ekapa projects, among others, attest to this. Both these projects contributed to a sense of ownership of the ‘space’ in the city.

In effect, Cape Town is racially divided in its suburbs, townships, and informal settlements. Inferences can therefore be made from the mid-year survey results that at least half of the project implementers, residing in suburbs, could be white, with a far smaller proportion of other races as implementers of projects. This could be a result of the spread of the message – did the news of WDC2014 reach into township areas, in a ‘language’ with which they could identify? Or it could link to the level of understanding of the aims of the WDC intervention, or to how empowered different



people feel to 'make a difference' in society. Further inferences need to be made carefully, and more information would be needed.

Conversely, by far the largest proportion of beneficiaries were indicated as living 'city-wide' (57 percent), with 22 percent of beneficiaries (specific projects) living in townships or informal settlements, and only 10 percent of beneficiaries (specific projects) living in suburbs or the city centre. From 'city-wide' one must infer that the largest proportion of projects was intended to benefit all citizens in the city. In all probability, 92 percent of these projects – citizen and city projects – are due to continue into the future. The WDC intervention therefore started 'a good thing'.

According to CTD's own analysis, the economic and intangible outcomes of the year have proven of immense value. Design, design thinking, participatory design, collaborations, social design, citizen involvement, international partnerships - have all proven their worth. A visionary and healthy foundation has been laid, maintains the CTD.

But it would be over-optimistic to think that the vision is shared across all sectors of society. To some critics it is 'fruitless expenditure'; while to others (because of the time-lapse - convoluted processes within City management and delayed fulfilment), it could represent more of top-down planning, dressed in fancy clothes.

One comment, on behalf of designers, is particularly insightful: 'The design community had also, for the first time, begun to feel acknowledged and valued in the greater economy, rather than marginalised as 'the artistic people'' (Maritz 2014). 'Marginalised' then, can have many nuances. One does not usually associate tertiary education and relative privilege with the feeling of marginalisation; but 'getting to know you' and 'building understanding' works both ways.

The critical question is: have we (the city) been changed by this WDC intervention? Or is it once again 'business as usual'? The legacy of the year will be deliberated in the Conclusion, alongside other important considerations.

## 7

## Observations and Conclusion

**7.1 Research Question and Importance of Study**

The research question posed at the outset was: What aspects influenced Cape Town's choice of a slogan and approach that connected social inclusion, economic development and sustainability for its World Design Capital 2014 programme? Could this approach be understood in the context of evolving global design movements? And could this be correlated with advancing technological revolutions and socio-metabolic transitions? Did the slogan and approach have a lasting contribution to sustainability?

A further important aim was to explore and emphasize Design's transdisciplinary connectivity with urbanism, political economics, environmental and social sustainability, complexity, ethics, leadership, globalisation and development planning.

The lens which was applied to this case study was the one-year intervention of World Design Capital 2014. The case study afforded the opportunity to simultaneously gain a fine-grained impression of the city, as well as to view the city within the larger context of historical global technological and ideological developments. This larger contextual view has enhanced an understanding of the city's present challenges and choices.

**7.2 The correlations between Design Movements, Technological Revolutions, Socio-Metabolic Transitions, and the sustainability of the outcomes of different Design Movements**

Design is one of the most awesome talents of humankind. Over time, it has been formalised, categorised, and 'captured' for application by various ideologies and purposes. It is a powerful tool to shape societies, for better or worse. It impacts on every facet of our lives, whether we are conscious of it or not, for Design has a profoundly ethical component, and intimately interacts with the surrounding context. Design is not neutral, nor does it operate in a vacuum. There are many powerful forces that influence its expression – political-economic systems, technological regimes, resource availability, iconic egos, marketing or planetary trends, citizen-consciousness.

The overview and synchronisation of technological revolutions and design movements provides an insight into the involved co-existence - action and reaction - between new scientific discoveries and artistic expression - and how this is transformed into products and ideas with marketable value, but also into cultural expressions and ideologies. Science and Art feed off each other's inspiration, react to each other's mistakes and over-reach, and together provide the continual rolling energy for what we call progress.

It is significant that all technological revolutions, and all design movements manifest in cities, those centres of power which provide the necessary critical mass of opinion-adopters, users, economies of scale, investment, education facilities, and workforce.

Particularly the 4<sup>th</sup> technological revolution and the accompanying design movements have not resulted in sustainable outcomes. The availability of cheap oil and the ideologies of Modernism and Consumerism have substantially contributed to the present planetary ecological crisis. The digital capabilities of the 5<sup>th</sup> technological revolution has been instrumental in exposing earth's sensitive barometers, which has resulted in counter-movements - from indulgent design, to human-centred and planet-conscious design expressions. The scarcity of energy and critical mineral resources is simultaneously forcing the planet through the 3<sup>rd</sup> socio-metabolic transition, which will necessitate the re-design of 'everything', in which materiality and morality are more sustainably balanced.

### **7.3 The relationship between Design and the city as tracked through the evolution in the design of cities, and the nature and impact of design in certain 'Design Cities' and World Design Capitals**

Examining the role of Design in the evolution of city-shaping reveals that it also influences the social interactions and activities within its precincts. Once city-shaping had become a deliberate discipline it was applied as a tool in the hand of political-economics - to manipulate, steer, and control; shaping the liberty, identity, value, economic engagement, surroundings, and quality of life of its different people groups; the image, reputation, functionality and purpose of a city; and its ranking and attractiveness compared to other cities. Two Waves of Urbanisation, rapid population growth, technological revolutions, design movements, and globalisation, among others, have contributed to the shaping of cities, to the push and pull between its citizens (contributing organic design) and those who plan the city (applying deliberative design). The fruit of these combined factors have been exposed in many cities as unsustainable - as economic growth has been pursued, while social and ecological health has been neglected.

Cities, as generators of industry and consumption, have become the focal point for concerns around sustainability. Ecological footprinting identifies the impact of the use of energy and other scarce natural resources (including fresh air and water); the Gini Coefficient reveals the levels of inequality between income groups; the influx of inhabitants places sensitive environmental areas and the urban edge (and therefore agricultural land) under pressure. Combined with its historical legacy and the overarching political ideology, a city can be a locus of a socio-economic-spatial-environmental crisis (Roberts et al 2009), manifesting in unsolvable wicked problems.

Design has contributed to the problems as handmaiden to various ideologies. Could it now contribute to the goal of sustainability - to social and spatial justice, which would imply economic inclusivity and restraint, rather than a dogged pursuit of growth? The application of Design in the service of Neoliberalism has forged strong associations between Consumerism, Capitalism and Democracy (Du Plessis (2014). But Neoliberalism and sustainability cannot co-exist (Fuad-Luke 2009).

The evidence that cities are 'generators of inequality' (with enormous slums within cities) has birthed other motivational streams in city-shaping - calling for The Sustainable City: socially just, inclusive, sustainable, resilient and liveable cities. However, social dilemmas and wicked problems are not so easily designed away. The methodological move towards participatory governance, user-centred design, and co-design and co-production with citizens, face institutional barriers and vested interests.

On the other hand, cities face sharp competition for trade and investment in the global village, requiring city image-building as a municipal imperative to maintain or gain a position as a 'Centre of Power'. In this quest the value that 'creatives' contribute to a city's economy is emphasised, but also their contribution to its image as a city of innovation and design (Florida 2002).

In addition, Design is being employed to explore futuristic forms of cities – The Smart City - working with rapidly advancing digital, bio- and nano-technology, making this an insistent and surreal contender in city-shaping, alongside the welfare of its citizens. On ethical grounds technology should be harnessed in the service of humankind, and not emerge as a contending actor.

The socially-just approach, the centre-of-power approach, and the hi-tech approach, are competing motivations for the application of Design. In a predominantly market-driven economic system, design skills and applications will flow where the money is. Only the government might concern itself

with social justice; and would they be prepared to remunerate skilled design practitioners to apply their thinking to social sustainability?

Certain cities have been regarded as ‘Design Cities’, and were the loci for the expression of the technological revolutions and design movements. These cities justifiably contributed some form of innovation that ‘changed the world’. But sustainability was certainly not their focus nor their first priority. However, the more recent World Design Capitals reflect a shift in design consciousness in their themes and applications, from 20<sup>th</sup> Century Consumerism, to 21<sup>st</sup> Century responsibility.

#### **7.4 The socio-political-economic realities of Cape Town; its rating as a sustainable city and aspects of sustainability that are not being addressed adequately; the influences of Design Movements, Technological Revolutions and previous ‘Design Cities’ in Cape Town’s development**

Cape Town is a designed city, with aspirations to be a ‘design city’.

An examination of the ‘State of the City’ of Cape Town reveals the urban form and transport network as being marked by Colonialism, Modernism, Apartheid, and Neoliberalism, manifesting in spatial and racial segregation, uneven access to city privileges and economic opportunities, and corporate and property developer dominance in the marketplace. Socio-economically, there are severe income and education inequalities, a deep distrust between the various sectors of society and the economy, and the prevalence of crime, gangsterism, substance abuse, and other social ills.

Environmentally, there is a loss of species, the threat to sensitive areas and the urban edge by an ongoing people influx and informal settlements, the challenge to air quality by the high and increasing use of fuel-driven vehicles, an untenable ecological footprint skewed to the upper classes, and the risk of climate change to weather patterns, agriculture, coastal zones and drinking water.

Socially, economically and environmentally, the city cannot be regarded as a sustainable city.

Cape Town shares a number of similarities with the historic, social, economic, climatic, technological, demographic and communication profiles of the ‘design cities’ discussed in Chapter 3. It is a cosmopolitan, multi-cultural city, with fierce political and ideological differences. It is an attractive city to tourists and foreigners with expendable income, who buy homes, and enjoy the lifestyle, the shopping, and the cuisine. It boasts many design educational institutions, with technological experimentation, as well as lifestyle and design magazines and shows. The city has been influenced by Modernism, the American Lifestyle, Consumerism, and miniaturisation. The city has a lively



community of artists and designers. More importantly, Cape Town has a strong urge to redesign and redefine itself, to break with past associations of conservatism, racism, and social and economic segregation.

All these reasons make it an ideal location for a healthy design industry. But would the focus of that design sector be on the three spheres of sustainability? Design, by whatever name it was applied to the urban form or has shaped an economic system, has not earned trust among the greater portion of citizens, who have been at the receiving end of injurious policies, practices and exclusions. And Consumerism, harnessing the services of Design, has not brought economic liberty to the masses, but has imposed its own hidden serfdom through planned and perceived obsolescence. Cape Town's present design culture is marked by Consumerism, rather than by sustainable considerations.

As a designed city, Cape Town can be interpreted in the context of historic global design movements which, in turn, could be correlated with unfolding technological revolutions and socio-metabolic transitions. Cape Town is a case study of a city that is a melting pot of various design movements, serving agendas dictated by the emphasis on economic growth (Consumerism), social pressures (human-centred design), and technological advancement (hi-tech design). Also, in this specific time-moment, the city is at a confluence of three technological revolutions (the end of the 4<sup>th</sup>, the middle of the 5<sup>th</sup>, and the beginning of the 6<sup>th</sup>) – that is, it is simultaneously caught in its addiction to oil and automobiles, is seeing the potential of and pushing forwards in the digital age, and is facing the radical advent of the 'green tech' age (Swilling 2013). Seen against the backdrop of the 3<sup>rd</sup> socio-metabolic transition, the city is affected by resource scarcity of energy and land, while skills and knowledge hold potential for the future. The way the City is facing these realities, will determine its path to sustainability.

Considering the City's many policies, programmes, and projects, and its publicly-stated goals, it is certain that Cape Town is striving towards sustainability. The City is stepping up to critical urban concerns, to a sharp awareness of environmental and social issues, and to technology being harnessed in pursuit of solutions. The Green Economy is being promoted along with other business solutions, as are cultural activities and programmes for inclusion. Skills training and the development of human capital are high on the agenda; as well as promoting public participation and negotiation. It is a well-run city with consistently clean audits; and a large portion of the budget is spent on social services, basic service delivery, upgrading of suburban and township facilities, and low-income housing projects. Economically, the city has an admirable contribution to GDP – but how do the

outcomes of the Economic Growth Strategy compare to the outcomes of the Social Development Strategy? Are they really two sides of a coin, or is the entrenchment of a neoliberal economic framework not deepening inequalities, rather than achieving greater spatial and social justice? This is a critical question, deserving deeper study.

Many challenges remain: for example, the concept of 'regenerative' vs 'recycling' has not yet surfaced in public debate. Citizen protest action, such as land grabs, might be seen to be counter-productive – but could this also be viewed as 'radical incrementalism', the people claiming a democratic voice? GDP is still the golden means of measurement, although an attempt at a more representative view of the city and its people is being presented through the HDI.

It is an uncomfortable reality that, whatever steps are taken towards full sustainability, citizens (and designers) will find themselves arm-wrestling with the powerfully ingrained neoliberal economic system of privileged and selective empowerment. Noam Chomsky reminds us, "Capitalism is shot through with subsidies for some of the most powerful private actors" (www.Salon 2015). This system has embedded itself on many levels and fronts, both locally and globally; it has become our familiar 'habitus'. Systems are extraordinarily difficult to shift.

It will take a radical paradigm shift before an explorative approach to change could be instilled in the city psyche. Political pressures are enormous, with no room for experimentation. This is the difference between Compliance and Creativity (Muller 2012b) as Goven experienced, when presenting an innovative, encompassing solution to the informal settlement in Kosova, which was stifled through bureaucratic processes (Pieterse 2009). But the challenge remains: city authorities need to create an ethos in which civil servants and citizens are able to "think, plan and act with imagination" – a vision of city-wide co-creation (Landry 2008). There is thus an important role for Cape Town's local government to build on the social justice agenda.

## **7.5 The Cape Town Design Community - shaping the approach of the WDC 2014**

The presence in the city of the design community inspired the confidence to enter a bid to be World Design Capital. And when Cape Town was declared WDC 2014, designers were elated, seeing an opportunity for their contribution and industry to be showcased and acknowledged.

However, M'Rithaa has described the design sector as having no collective vision; Wenz has stated that Cape Town cannot be regarded as a 'design city', but "... a city with a number of creative places";

the WC Design Strategy has identified education as a weak link in growing the sector; Maritz has acknowledged that design practitioners are market-focussed; and public servants do not readily include themselves in this group of thinkers.

Depending on where designers are employed and which sectors they serve (whether commercial, academic, local government, and other) their focus and understanding of the contribution of design would be shaped by their involvement. As a collective they would be 'caught' between the end of the 4<sup>th</sup> technological revolution (indulgent, consumerist design), the mid-point of the 5<sup>th</sup> technological revolution (a greater focus on service and systems design using digital technology), and the start of the 6<sup>th</sup> technological revolution (the design of the future).

However, the WDC slogan, created within Cape Town Partnership, and certainly with input by a number of design thinkers and design leaders in the city, testifies to a high awareness of the contradictions within the city - and the potential of design to meet the challenges of a 21st C African city with sustainable solutions.

When the focus of the Bid Book was explained to the design community - emphasizing the shift from 'the pretty to the gritty' - they rallied to the cause with over a 1000 programmatic submissions. In addition, they offered their services at relatively low rates to be part of the city's Ward co-design workshops with members from the various communities.

In relation to the Cape Town Design Community, the question was asked: Is there a 'Space' within which Design and design thinking can contribute to the overall sustainability of Cape Town?

Faced with a number of conflicting, complex considerations, as reflected in point 5.10, a higher-order of design maturity, reflecting responsibility for the outcomes of the design action is called for. Design maturity should reflect one's consciousness and commitment to design solutions that do not harm the planet, empower ordinary citizens in the fullest sense, and lastly keep the markets functioning, without feeding greed.

A Sustainability Design Movement, springing up from the design community themselves, could confront the demands, inequalities and careless disregard of a market-driven economy. United - as creatives/citizens/voters - designers should demand 'compliance' to full sustainability from government and private sector.

With just a one-year intervention, World Design Capital 2014 hoped to leave a design legacy to the city. Within City management, there is probably the awareness that Design can deliver, that design thinking is a remarkable tool for collaboration between departments, for collaboration with citizens, and for focussing on user-centred and social design. For the overall programme, there was this reassurance that a large number of projects fell in the quadrant denoting 21<sup>st</sup> Century design practices – a move from product to systems, a move from design process to co-design (Manzini 2014).

The emphasis on Co-design created diverse partnerships in projects, and started to pioneer a different way of achieving results – rather than the antiquated, but still prevalent, silo-approach. The City's 111 co-design Ward workshops became a key mechanism to creating such a Space where citizens, designers, and City management could converge, to find answers to some situations in the city. But the impact of it could be weakened because these were once-off meetings in each Ward, and because the time-lag to roll-out the solutions could disappoint expectations. Ward workshops of this nature should be repeated and scaled up. However, to the design community social challenges have become more meaningful and critical, and designers, if commissioned to do so, are very ready to contribute their thinking and creative skills (Maritz 2014).

The 77 ongoing City projects, which were included in WDC 2014, highlighted the City's 'design DNA' (Sullivan u/d) representing the City's underlying design approach to urban challenges, wicked problems and citizen needs, testifying to the City's endeavours to deal with social, environmental, spatial, and economic issues – with varying degrees of success.

The City is to be commended for appointing a WDC team within its own structures, specifically to address the practice of different departments working in isolation. But that department has now been disbanded, and the vexing question is whether a year was enough to sufficiently embed a different way of thinking and doing in City management, touching the minds of 25 000 staff members. Or would there be a return to the familiar 'business as usual'? Has the civil servant been 'redesigned'? It is fairly certain that the value relegated to Compliance has not been sufficiently challenged by the merits of Creativity (Muller 2012b).

Between the design community, city management and the developmental needs of civil society, a 'Space' needs to be created, by the City, for designers and communities to contribute meaningfully. Designers need to be empowered to operate in this 'Space', and to deal with resistance and obstacles

- institutional, regulatory, silo-locked procedures, vested interests - which would limit their contribution.

## **7.6 World Design Capital 2014 - aspects influencing the choice of approach, and addressing the issues of sustainability in Cape Town**

An assessment of previous World Design Capitals illuminates Cape Town's brave approach to this programme. The city does not compare favourably with Turino, Seoul, or Helsinki in terms of Gini Coefficient; it is far behind according to HDI ratings; and does not achieve an encouraging sustainability score, compared to other world cities (although it is 6<sup>th</sup> on the African continent). But the City used exactly these sobering facts to frame its Bid to ICSID, thereby, as M'Rithaa pointed out, representing the 'majority world' (90% of global population) and setting 'a template for bids in the future'.

Cape Town's WDC slogan '*Live Design. Transform Life.*' focussed on design for social justice, reflecting 21<sup>st</sup> Century imperatives. These priorities were also echoed by Turino, highlighting design for ecological sustainability ('*Another Green Colour*'); by Seoul stressing inclusive design ('*Design for All*'), and by Helsinki emphasising human-centred design ('*Open Helsinki – embedding design in life*').

In comparison to the other WDC cities, Cape Town had a small budget – it relied heavily on citizen and private sector participation to shape the year-long WDC programme. It was not corporate business that contributed most to the projects which formed the year-long event, but citizens, community groups, NGOs, and designers in their own capacity.

Stepping up to the City's challenges and offering Design as a solution, was a bold move on the part of City management. (It is not clear whether they acknowledged that the city's current form and wicked problems were also as a result of Design).

However, to contextually understand Cape Town's choice of a slogan and its approach that connected social inclusion, economic development and sustainability for its World Design Capital 2014 programme, the city needs to be read in relation to long-wave technological revolutions and unfolding design movements, acting in synergy.

As illustrated, Cape Town as a 21<sup>st</sup> Century African city - with its history designed into all of its physical form, social and governmental structures, and ruling political-economic system - cannot



qualify as a sustainable city. The city can be seen as a melting pot of global design movements and discourses, as well as at the confluence of three technological revolutions (the end of the 4<sup>th</sup>, the middle of the 5<sup>th</sup>, and the beginning of the 6<sup>th</sup>) – that is, it is simultaneously caught in its addiction to oil and automobiles, is seeing the potential of and pushing forwards in the digital age, and is facing the radical advent of the ‘green tech’ age (Swilling 2013). As well the city is experiencing the pressures of resource scarcity (energy and land), signalling the 3<sup>rd</sup> socio-metabolic transition.

The city, in fact, presents an excellent case study of the present discourse in long-wave theory and design movements, brought together in this thesis. Overlaying these onto Cape Town assists in understanding the ‘state of the city’, as well as the choice of approach of the design intervention of WDC 2014. Design was positioned as able to provide solutions for social inclusion, economic development and sustainability, at the same time problematic areas and imperatives from the 4<sup>th</sup> technological revolution, and the indulgent, consumerist design expressions that accompanied that period. Again it must be pointed out that ecological challenges were not verbalised.

Design certainly has the power to impact on all aspects of life and society – and will continually be called upon to do so in the unfolding future. But was it able to make a lasting contribution to sustainability in Cape Town through this intervention?

In the roll-out of WDC 2014 and due to procedural delays, there was only a six-month build-up to WDC 2014. The City did not give itself enough time to sensitize citizens to the event, to an understanding of design, or to understand how they could be involved and contribute. It was the author’s impression that the further one moved away from the central city, the less knowledge the people had about World Design Capital.

Nevertheless, as the greater evolutionary cycles and transitions continue to push for sustainable alternatives, what was achieved during that year will form the basis for further development and progress.



*Cape Town, Adderley Street, all dressed up for World Design Capital 2014.  
designtabloid.com*

## Bibliography

- African Centre for Cities. Undated. [Online]. Available: [www.africancentreforcities.net/](http://www.africancentreforcities.net/), accessed 13 September 2015.
- Association of African Planning Schools Undated. *Guidelines for Case Study Research and Teaching* [Online]. Available: [http://www.africanplanningschools.org.za/images/stories/aaps/aaps\\_cr\\_toolkit.pdf](http://www.africanplanningschools.org.za/images/stories/aaps/aaps_cr_toolkit.pdf) - accessed 12 February 2015.
- Albrechts, Louis. 2012. Reframing strategic spatial planning by using a coproduction perspective. *Planning Theory* 12(1) 46–63.
- Amazon.com. Undated [Online]. *Book Reviews*. Available: [www.amazon.com](http://www.amazon.com) – accessed ongoing.
- Amin, A. & Graham, S. 1997. The ordinary city. *Transactions of the Institute of British Geographers* 22:411-29.
- Aoki, Keith. 1993. Race, Space and Place – the relation between Architectural Modernism, Post Modernism, Urban Planning and Gentrification. *Fordham Urban Law Journal* 699 (1993).
- Arup. Undated.[Online]. *Value through Design. Promotional brochures: Dongtan, Masdar, Tianjin*. Accessed 14 June 2013.
- Ashby, W. R. 1958b. Requisite variety and its implications for the control of complex systems. *Cybernetica*, 1: 83- 99.
- Avore, Chris & Irizarry, Aaron. 2014. *Designing a culture of design*. New York, Webvisions. April 4, 2014. <http://www.slideshare.net/erova/designing-a-culture-of-design> - accessed 20 August 2015.
- Bakker, Peter. 2013. *What it takes to seed a sustainability revolution. Planetary Boundaries*. Cambridge Distinguished Lecture Series.
- Balson, Scott. 2007. *Children of the Mist. The Lost Tribe of South Africa*. Interactive Presentations (Pty) Ltd, Australia, [www.griquas.com](http://www.griquas.com).
- BBC News. 28 March 2010. [Online]. Available: [http://news.bbc.co.uk/2/hi/middle\\_east/8586046.stm](http://news.bbc.co.uk/2/hi/middle_east/8586046.stm) - accessed 16 June 2013.
- Beall, J. & Fox, S. (2009). Urbanisation and development in historical Perspective. In: Beall, J. & Fox, S. *Cities and Development*. London, Routledge, pp 34-66.
- Beall, Jo, Guha-Khasnobis, Basudeb, Kanbur, Ravi. 2008. *Beyond the Tipping Point: A Multidisciplinary Perspective on Urbanization and Development*. No 51179, Working Papers from Cornell University, Department of Applied Economics and Management.
- Behrens, Roger & Watson, Vanessa. 1996. *Making Urban Places. Principles and Guidelines for Layout Planning*. Cape Town, UCT Press (Pty) Ltd.
- Bell, Hannah. 1 June 2011. *Blogpost by school teacher*, [www.democraticunderground.com](http://www.democraticunderground.com).
- Ben-Eli, Michael. 2007. *Design Science - A Framework for Change*. The Sustainability Laboratory, New York.
- Benyus, Janine and Brown, Tim. Undated. [Online]. *Nature knows best*. TedxTalks. <http://ideas.ted.com/nature-knows-best-a-biologist-and-a-designer-take-creative-direction-from-the-earths-operating-system/> - accessed 16 May 2015.

- Berman, Kathy. 2014. [Online]. Design Indaba Cape Town: *20 years on, the creative economy thrives – and could even compete with mining*. Daily Maverick. Available on: [http://www.dailymaverick.co.za/article/2014-02-28-design-indaba-cape-town-20-years-on-the-creative-economy-thrives-and-could-even-compete-with-mining/#.UxgQe\\_mSyZM](http://www.dailymaverick.co.za/article/2014-02-28-design-indaba-cape-town-20-years-on-the-creative-economy-thrives-and-could-even-compete-with-mining/#.UxgQe_mSyZM).
- Berman, Kathy. 2013. [Online]. *Design Indaba 2013: Where art, culture, science and technology collide*. Available on: <http://www.dailymaverick.co.za/article/2013-03-06-design-indaba-2013-where-art-culture-science-and-technology-collide/>.
- Berman, Marshall. 1982. *All that is Solid melts into Air*. Penguin.
- Better Living Challenge. Undated. [Online]. *Better Living Challenge*. Available on: <http://betterlivingchallenge.co.za/> - accessed on 12 June 2014.
- Beyerle, Tulga. 2008. Essay 2: Vienna 1908. Giving birth to Modernism. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen, Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.
- Billen, Nigel. (Ed). 2008. *Design Cities 1851-2008. Eight moments that changed the world*. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.
- Biophilic Cities. June 2013. [Online]. *Biophilic Cities*. Available on <http://biophiliccities.org/> - accessed 17 June 2013.
- Bond, Patrick. 2002. *Unsustainable South Africa: Environment, Development and Social Protest*. London, Pluto Press.
- Bonzo, J. Matthew & Stevens, Michael R. 2008. *Wendell Berry and the Cultivation of Life: A Reader's Guide*. Brazos Press, Ada, Michigan.
- Bornstein, David. 2014. [Online]. *Reclaiming 'We the People' One Person at a Time*. Available at: [http://opinionator.blogs.nytimes.com/2014/09/04/realizing-we-the-people-one-person-at-a-time/?\\_php=true&\\_type=blogs&\\_r=0](http://opinionator.blogs.nytimes.com/2014/09/04/realizing-we-the-people-one-person-at-a-time/?_php=true&_type=blogs&_r=0) – accessed 15 September 2014.
- Borwick, D. 2012. *Building Communities, Not Audiences: The Future of the Arts in the United States*. USA, ArtsEngaged.
- Bourdieu, Pierre. 2004. *Science of Science and Reflectivity*. Polity Press, Cambridge.
- Bourdieu, Pierre. 1984. *Distinction: A Social Critique of the Judgement of Taste*.
- Brinkhoff, Thomas. 1 July 2015. *Major Agglomerations of the World*. <http://www.citypopulation.de>.
- Brennan, Friar Robert. 8 February 2012. *Blogpost* by Columban missionary, [www.columban.org.au](http://www.columban.org.au).
- Brown, T. 2008. Design Thinking. In *Harvard Business Review*. 6 : 84 – 92.
- Brundtland Commission. 1987. *Report of the World Commission on Environment and Development: Our Common Future*. New York, Oxford University Press.
- Brown, Theodore. 1966. Rietveld and the Man-made Object. Essay in *The Man-Made Object*. (Ed) Gyorgy Kepes. New York, G. Braziller.
- Brown, Tim. (undated). *From Design to Design Thinking*. Penny Stamps Distinguished Speaker Series, University of Michigan. Video on YouTube.

Buchanan, Richard, 2009. Wicked Problems in Design Thinking, in Clark-Brody (ed), *Design Studies*, Berg.

Buckminster Fuller. Undated. [Online]. *About Fuller*. Available on: <https://bfi.org/about-fuller> - accessed 16 January 2015.

Bulletin of Science. 2000. Charter of the New Urbanism. *Technology & Society*, Vol. 20, No. 4, August 2000, 339-341. Sage Publications, Inc.

Business Week. 27 February 2008. [Online]. *The Seoul of World Design*. Available on: <http://www.bloomberg.com/bw/stories/2008-02-27/the-seoul-of-world-designbusinessweek-business-news-stock-market-and-financial-advice> - accessed 12 July 2012.

Byrne, David. 2001. *Understanding the Urban*. Palgrave Macmillan.

California Academy for Sciences. Undated.[Online].*Resilient Cities Creating a Liable World*. Available on: [http://fora.tv/2011/02/08/Resilient\\_Cities\\_Creating\\_a\\_Livable\\_World](http://fora.tv/2011/02/08/Resilient_Cities_Creating_a_Livable_World) - accessed 24 March 2013.

Campbell, Emily. 2008. *Essay 8: London 2008. A creative centre*. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen.Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.

Cape Argus. 30 May 2012. [Online]. *Through Design a City's Destiny can be shaped*. Available on: <http://www.iol.co.za/capeargus/through-design-a-city-s-destiny-can-be-shaped>. Accessed on 12 June 2012.

Cape Craft + Design Institute. Undated. [Online]. Available on: [www.ccdi.org.za/](http://www.ccdi.org.za/) - accessed 20 June 2014.

Cape Craft + Design Institute. 23 June 2015. [Online]. *The impact of World Design Capital 2014*. Available on: <http://www.ccdi.org.za/news/news.asp?id=237987&hhSearchTerms=%22WDC+and+outcomes%22> – accessed 23 June 2015.

Cape Information Technology Initiative: Undated. [Online]. Available on [www.citi.org.za/](http://www.citi.org.za/) - accessed 2 January 2015.

Cape Institute for Architecture. Undated. [Online]. Available on: [cifa.org.za/](http://cifa.org.za/) - accessed 2 January 2015.

Cape Times, October 19, 2004. *It's official: Cape Town is the best city in the world!*

Cape Town. Undated. [Online]. *World Design Capital 2014*. Available on: [www.capetown.gov.za/en/wdc2014/Pages/default.aspx](http://www.capetown.gov.za/en/wdc2014/Pages/default.aspx) - accessed 2 August 2014.

Cape Town 2014. Undated. [Online]. *WDC2014 Curators*. Available at: <http://wdccapetown2014.com/submissions/curators/> - accessed on 23 April 2013.

Cape Town 2014. Undated. [Online]. *WDC2014 Themes*. Available at: <http://wdccapetown2014.com/Themes/themes-explored/>. 23 April 2013.

Cape Town 2014 Undated. [Online]. *WDC2014 FAQs*. Available at: <http://wdccapetown2014.com/FAQs/> - accessed on 23 April 2013.

Cape Town 2014. 29 March 2012. [Online]. *Cape Town got 99 problems, but design ain't one*. Available at: <http://www.capetown2014.co.za/home/cape-town-got-99-problems-but-design-aint-one/> - accessed on 30 March 2012.

Cape Town 2014. Undated. [Online]. *Cape Town 2014*. Available at: <http://www.capetown2014.co.za/2010/> - accessed on 2 February 2013.

Cape Town 2014. Undated. [Online]. *Design Storming: igniting change with collective imagination*. Available at: <http://www.capetown2014.co.za/home/design-storming-igniting-change-with-collective-imagination/> - accessed 6 July 2014.

Cape Town 2014. 2011. [Online]. *Cape Town a city of inspiration and innovation*. Available at: (<http://www.capetown2014.co.za/2011/05/cape-town-a-city-of-inspiration-and-innovation>) – accessed 12 November 2013.

Cape Town 2014. Undated. [Online]. *Iain Harris supports Cape Town for World Design Capital 2014*. Available at: <http://www.capetown2014.co.za/2010/11/iain-harris-supports-cape-town-for-world-design-capital-2014/> - accessed 12 November 2013.

Cape Town 2014. Undated. [Online]. *Mokena Makeka on why Cape Town is a design city*. Available at: <http://www.capetown2014.co.za/2010/11/mokena-makeka-on-why-cape-town-is-a-design-city/> - accessed 12 November 2013.

Cape Town 2014. Undated. [Online]. *Why Byron Qually supports Cape Town for world design capital 2014*. Available at: <http://www.capetown2014.co.za/2010/12/why-byron-qually-supports-cape-town-for-world-design-capital-2014/> - accessed 12 November 2013.

Cape Town 2014. Undated. [Online]. *Why Heather Moore supports Cape Town for World Design Capital 2014*. Available at: <http://www.capetown2014.co.za/2010/12/why-heather-moore-supports-cape-town-for-world-design-capital-2014/> - accessed 12 November 2013.

Cape Town 2014: 2013. [Online]. *Watch Cape Town's Signing Ceremony Video*. Produced for the winning bid. Available at: [www.capetown2014.co.za](http://www.capetown2014.co.za). – accessed on 3 April 2013.

Cape Town Design Network. Undated. [Online]. Available at: [www.ctdn.co.za/](http://www.ctdn.co.za/) - accessed on 7 February 2015.

Cape Town Design. June 2014. *WDC Project Survey*.

Cape Town Fashion Council. Undated. [Online]. Available at: [www.ctfc.co.za/](http://www.ctfc.co.za/) - accessed 12 February 2015.

Cape Town Furniture Initiative: Undated. [Online]. Available at: [www.capefurniture.za.org/links.htm](http://www.capefurniture.za.org/links.htm) - accessed 12 February 2015.

Cape Town Magazine. Undated. [Online]. *Shopping Centres of Cape Town*. Available at: [www.capetownmagazine.com](http://www.capetownmagazine.com) – accessed 21 October 2015.

Cape Town Partnership. Undated. [Online]. Available at: [www.capetownpartnership.co.za](http://www.capetownpartnership.co.za) – accessed 12 February 2015.

Cape Town Partnership. 2012. [Online]. *Meet ICSID's new president*. Available at: <http://www.capetownpartnership.co.za/2013/12/meet-icsids-new-president-elect-cape-towns-own-mugendi-mrithaa/> - accessed 15 December 2014.

Cape Town Partnership, Creative Cape Town Initiative. 2008. *The Central City Creative Industries: 2008 Survey*. Cape Town.

Cape Town Partnership. 2009. [Online]. *Is Cape Town a design city? David Schmidt on Cape Town as the capital of Cool*. Available at: <http://www.youtube.com/watch?v=9bTjuEH4EBM&lr=1> – accessed 5 January 2015.

Cape Town Partnership. 2009. [Online]. *Is Cape Town a design city? Alastair Rendall on Rapid Transit by Design*. <http://www.youtube.com/watch?v=klR52T6VyZM&lr=1> – accessed 5 January 2015.

Cape Town Partnership. 2009. [Online]. *Is Cape Town a design city? Cathy Stone on Planning of Space for Creativity*. <http://www.youtube.com/watch?v=w6vLLuKh90&lr=1> – accessed 5 January 2015.



Cape Town Partnership. Undated. *The History of the Cape Town Partnership*.

Capra, F. 2002. *The hidden connections: a science for sustainable living*. London: HarperCollins.

Central City Improvement District. 2014. *The State of Cape Town Central City Report*.

Charlton, S. and Kihato, C. 2006. "Reaching the poor? An analysis of the influences on the evolution of South Africa's housing programme" in Pillay, U., Tomlinson, R. and du Toit, J. (eds.) *Democracy and Delivery: Urban Policy in South Africa*. Pretoria: HRSC Press.

Charmaz, K. 2006. *Constructing grounded theory: a practical guide through qualitative analysis*. London, UK.

Chomsky, Noam. 25 September 2015. [Online]. *Bernie Sanders can't save America*. Available at: [www.salon.com/writer/noam\\_chomsky\\_berniesanders\\_cant\\_save\\_america](http://www.salon.com/writer/noam_chomsky_berniesanders_cant_save_america) - accessed 17 October 2015.

Cressey, D. R. 1953. *Other People's Money*. Free Press, Glencoe, IL.

Choi, Wonsik and Dobbs, Richard. 22 February 2013. *Renewing the South Korean miracle*. McKinsey Global Institute. [http://www.mckinsey.com/insights/mgi/in\\_the\\_news/renewing\\_the\\_south\\_korean\\_miracle](http://www.mckinsey.com/insights/mgi/in_the_news/renewing_the_south_korean_miracle) - accessed 28 December 2013.

#### CITY OF CAPE TOWN MEDIA RELEASES:

City of Cape Town. 6 August 2015. *City completes street people enumeration*.

City of Cape Town. 9 June 2015. *City scoops transport award in Milan, Italy*.

City Of Cape Town. 3 June 2015. *Transport Development Index reveals cost of transport in Cape Town in terms of time and money*.

City of Cape Town. 2 June 2015. *Council approves city-wide public transport operations plan to ensure mobility into the year 2032*.

City of Cape Town. 1 March 2015. *Over 1 000 Pelican Park units already handed over*.

City of Cape Town. 10 February 2015. *Design-led thinking and upgrades improve lives of Flamingo Crescent residents*.

City Of Cape Town. 18 November 2014. *MyCiTi Lansdowne/Wetton Corridor to unlock opportunities in the metro south-east and beyond*.

City of Cape Town. 10 October 2013. *Speech by the City's Executive Mayor, Alderman Patricia de Lille at the Annual General Meeting of Cape Town Tourism on 10 October 2013*.

City of Cape Town. 8 October 2014. *City's big drive to enhance public spaces is bringing communities together*.

City of Cape Town. 2 October 2014. *Hanover Park service provision for backyarders nearing completion*.

City of Cape Town. 2 October 2014. *City shines as best metro, raking in top housing awards*.

City of Cape Town. 1 October 2014. *City's hostel transformation dream becoming a reality*.

City of Cape Town. 30 September 2014. *City is committed to leaving no one behind and building a society for all*.

City of Cape Town. 29 September 2014. *City completes hundreds of Hanover Park rental unit upgrades in record time.*

City of Cape Town. 27 September 2013. *Draft Revised Informal Trading Policy and Amendments to the Informal Trading By-Law, 2013.*

City of Cape Town. 16 September 2014. *Mayor De Lille to clean the Black River with EPWP workers.*

City of Cape Town. 13 August 2014. *Cape Town cannot afford or tolerate large-scale land invasions.*

City of Cape Town. 10 July 2014. *City condemns violent protests at the expense of service delivery.*

City of Cape Town. 12 June 2014. *Update on Lwandle eviction.*

City of Cape Town. 11 June 2014. *City provides long-term solution to Lwandle situation.*

City Of Cape Town. 8 June 2014. *City approves maps indicating reduced parking requirements for development in priority areas.*

City of Cape Town. 29 May 2014. *New Development Charges Policy passed by Council.*

City of Cape Town. 27 May 2014. *City's Expanded Public Works Programme changes the lives of unemployed residents.*

City of Cape Town. 21 May 2014. *Mayor hands over keys of refurbished flats to Manenberg tenants.*

City of Cape Town. 14 May 2014. *City scoops award as top municipality for water and electricity services.*

City of Cape Town. 1 May 2014. *Cape Town is a firm favourite for local tourists.*

City of Cape Town. 29 April 2014. *Ses'Khona People's Rights Movement nothing more than desperate ANC thuggery in disguise.*

City of Cape Town. 16 April 2014. *City's Broadband Achieves Major Milestone.*

City of Cape Town. 13 April 2014. *Mitchells Plain Town Centre benefits from economic injection.*

City of Cape Town. 1 April 2014. *City's backyarder services to be rolled out in Gugulethu.*

City of Cape Town. 25 March 2014. *City's key strategic assets transformed into premier event locations.*

City of Cape Town. 25 March 2014. *People of Cape Town to benefit from City's proposed CTICC plans.*

City of Cape Town. 22 March 2014. *City cancels Princess Vlei shopping centre project.*

City of Cape Town. 19 March 2014. *Mayor De Lille launches City's substance abuse awareness campaign.*

City of Cape Town. 27 February 2014. *MyCiTi recognised as a world leader in universal access.*

City of Cape Town. 20 February 2014. *Handover of Certificates of Tenure in Monwabisi Park.*

City of Cape Town. 11 February 2014. *City's welcomes Moody's confidence in Cape Town's financial stability.*

City of Cape Town. 5 February 2014. *Speech by the City's Executive Mayor, Alderman Patricia De Lille, at a meeting between the City, the Western Cape Government, the Concerned Citizens' Group and Community Members.*

City of Cape Town. 4 December 2013. *City's new design policy to drive safety, integration of future developments.*

City Of Cape Town. 2 December 2013. *City employs persons with disabilities to carry out a comprehensive universal access audit of transport facilities.*

City of Cape Town. 25 November 2013. *City's service provision to Riemvasmaak shows commitment to redress.*

City of Cape Town. 13 November 2013. *Urban Regeneration Programme brings practical improvements.*

City of Cape Town. 5 November 2013. *City's plan to overhaul Cape Town's informal settlements gets the go-ahead.*

City of Cape Town. 28 October 2013. *City issues title deeds to Site C residents.*

City of Cape Town. 28 October 2013. *Plans underway for housing project in Grassy Park.*

City of Cape Town. 27 September 2013. *Integrated City Development Grant to Assist in the Development of Sustainable Environments.*

City of Cape Town. 19 September 2013. *City wins Recycling Municipality of the Year award.*

City Of Cape Town. 28 August 2013. *Approved by-law to transform public transport in Cape Town to become easier, faster, more convenient, and more cost-effective with the adoption of the Transport for Cape Town (TCT) By-law of 2013.*

City of Cape Town. 27 August 2013. *City scoops prestigious international GIS Award.*

City of Cape Town. 26 August 2013. *City to boost public art, carnival culture.*

City of Cape Town. 21 August 2013 *City to build homes for thousands of Langa residents.*

City of Cape Town. 30 May 2013. *City offers incentives for investment in Cape Town.*

City of Cape Town. 8 May 2013. *Letter to the editor: The City of Cape Town's response to Jared Sacks.*  
<http://www.dailymaverick.co.za/article/2013-05-08-letter-to-the-editor-the-city-of-cape-towns-response-to-jared-sacks/#.UYqjEtsaLIV>

City of Cape Town. 22 February 2013. *City extends UDZ incentive to include parts of Maitland, Parow and Bellville: Minister of Finance extends validity period to 2020.*

City of Cape Town. 19 February 2013. *City's new zoning scheme to be implemented from 1 March 2013.*

City of Cape Town. 18 February 2013. *City scores high as best performing municipality.*

City of Cape Town. 28 January 2013. *City announces intention to revive City Hall.*

City of Cape Town. 28 January 2013. *City's waste facility wins award for outstanding achievements.*

City of Cape Town. 12 January 2013. *Cape Town is New York Times' number one spot to visit this year.*

City Of Cape Town. 18 December, 2012. *Green cycle lane for Bree Street – a first in SA.*

City of Cape Town. 18 December 2012. *City's energy-saving public lighting programme receives an Eskom eta Award.*

City of Cape Town. 2014. *Designing our City Together. The City of Cape Town's World Design Capital 2014 Public Sector Programme.* [www.capetown.gov.za/en/wdc2014/Pages/default.aspx](http://www.capetown.gov.za/en/wdc2014/Pages/default.aspx) - undated. Accessed 16 December 2014.

City of Cape Town. 2012. *Cape Town Spatial Development Framework.*

City of Cape Town. Integrated Development Plan (IDP) 2007 – 2012: *Five-year Plan for Cape Town. 2010 – 2011 Review.*

City of Cape Town. March 2011. *World Design Capital 2014 Bid Book.*

City of Cape Town. November 2010. *Cape Town Spatial Development Framework (CTSDF).*

City of Cape Town. October 2010. *Draft Analysis of the Cape Town Spatial Economy - Implications for Spatial Planning Policy.*

City of Cape Town. January 2003. *Creating a Dignified City for all: The City of Cape Town's Uluntu Plaza Dignified Places Programme.*

City of Cape Town. Undated. [Online]. Available at: <http://www.capetown.gov.za/en/wdc2014/Pages/default.aspx> - accessed on 14 May 2015.

City of Helsinki. 2012. *Final Report World Design Capital 2012.*

City of Helsinki. 13 March 2013. [Online]. *Deloitte impact assessment: Helsinki as World Design Capital 2012 achieved goals and grew larger than planned.* Available at: [www.hel.fi/hki/helsinki/en/current/wdc-reports](http://www.hel.fi/hki/helsinki/en/current/wdc-reports) - accessed on 17 June 2013.

City of Helsinki, Urban Research, Finland. 2012. June 2012 *WDC Research Study*. Research team led by Pekka Mustonen, [pekka.mustonen@hel.fi](mailto:pekka.mustonen@hel.fi).

City of Portland. Undated. [Online]. *US City Rankings.* Available at: <http://www.sustainlane.com/us-city-rankings/cities/portland> 2008 - accessed on 2 July 2011.

City of Vancouver. Undated. [Online]. *Vancouver: Green Capital.* Available at: [http://vancouver.ca/greencapital/pdf/VGC\\_Civic\\_facilities\\_FactSheet.pdf](http://vancouver.ca/greencapital/pdf/VGC_Civic_facilities_FactSheet.pdf), accessed 2 July 2011).

Coggin, T & Pieterse, M. 2011. Rights and the City: An Exploration of the Interaction between Socio-economic Rights and the City. *Urban Forum DOI 10.1007*. Springer Science+Business Media B.V.

Crane, W & Swilling, Mark. 2008. Environment, Sustainable Resource Use and the Cape Town Functional Region – An Overview. *Urban Forum* (2008) 19:263–287. Springer Science + Business Media, published online.

Creative Cape Town. Undated. [Online]. [www.creativecapetown.com](http://www.creativecapetown.com) – accessed 2 February 2015.

Creative Cape Town. October 2014.[Online]. *Design Policy Conference.* Available at: [www.creativecapetown.com/report-design-policy-conference/](http://www.creativecapetown.com/report-design-policy-conference/) - accessed 15 November 2014.

Creative Cape Town. 2014. [Online]. *The results 2014 Creative Cape Town.* Available at: [www.creativecapetown.com/the-results-2014-creative-cape-town-](http://www.creativecapetown.com/the-results-2014-creative-cape-town-)

survey/?utm\_source=feedburner&utm\_medium=email&utm\_campaign=Feed%3A+CreativeCapeTown+%28Creative+Cape+Town%29 – accessed 11 December 2014.

Creative Cape Town. 8 November 2011. [Online]. *What World Design Capital 2014 isn't*. Available at: [www.creativecapetown.com/what-world-design-capital-2014-isn't/](http://www.creativecapetown.com/what-world-design-capital-2014-isn't/) - accessed 11 November 2011.

Creative Cape Town. Undated. [Online]. *Beyond the brief; new ways of working*. Available at: <http://www.creativecapetown.net/beyond-the-brief-new-ways-of-working/> - accessed 6 July 2014.

Creative Cape Town. 2009. [Online]. *Design in the Central City*. Available at: [www.creativecapetown.net/design-in-the-central-city/the-design-sector-in-cape-town/](http://www.creativecapetown.net/design-in-the-central-city/the-design-sector-in-cape-town/) - accessed 2011.

Cross, Jennifer E. 2001. *What is Sense of Place?* Presentation to the 12th Headwaters Conference, Western State College, November 2-4, 2001.

Curtis, Adam. 2005. *Century of the Self*. BBC series. <http://thoughtmaybe.com/the-century-of-the-self/> - 21 September 2013.

DAG National Conference. 1-13 October 2010. *Re-Imagining the City: A New Urban Order*. [www.dag.org.za/resources/research-reports.html](http://www.dag.org.za/resources/research-reports.html)

Davis, Mike. 2006. *Planet of Slums*. London, Verso, New Left Books.

Davis, Rebecca. 23 September 2013. [Online]. *Rashied Staggie release: leader of the pack is back on the streets*. Available at: <http://www.dailymaverick.co.za/article/2013-09-23-rashied-staggie-release-leader-of-the-pack-is-back-on-the-streets/#.UkFJQfMaLIV> – accessed 23 September 2013.

Davis, Rebecca. 17 May 2013. [Online]. *Is the future of Cape Town 25 km from Cape Town?* Available at: <http://www.dailymaverick.co.za/article/2013-05-17-is-the-future-of-cape-town-25km-from-cape-town/#.UcdXKtsaLIU> – accessed 23 June 2013.

De Bono, Edward. 2000. *New Thinking for the New Millennium*. New Millennium Press.

De Lille, (Mayor) Patricia. 24 June 2013. *Cities are the drivers of economic growth*. Speech at Kelvin Grove Club.

Department of Economic Development and Tourism, Provincial Government of the Western Cape, and the Cape Craft & Design Institute. 2013. *Design. Driving Competitive Advantage in the Western Cape. A strategy for design to unlock innovation*.

Design Education Forum of South Africa: Undated. [Online]. Available at: <http://www.defsa.org.za/node/282> - accessed 4 February 2015.

De Vos, Pierre. 9 May 2013. [Online]. *Cape Town evictions: Brutal, inhumane, and totally unlawful*. Available at: [http://www.dailymaverick.co.za/opinionista/2013-05-09-cape-town-evictions-brutal-inhumane-and-totally-unlawful/#.UYs-OKJ\\_NJJ](http://www.dailymaverick.co.za/opinionista/2013-05-09-cape-town-evictions-brutal-inhumane-and-totally-unlawful/#.UYs-OKJ_NJJ) – accessed 15 May 2014.

Dewar, David & Louw, Piet. 2012. *J'Accuse: The Professions Concerned with the Built Environment*. Journal of the South African Institute of Architects, Vol 57, September/October 2012.

Dewar, David. 2009. *World class status is a goal too far*. Capeinfo.com.

Dewar, David & Todeschini, Fabio. 2004. *Rethinking urban transport after modernism: lessons from South Africa*. Aldershot, England, Ashgate Publishing Limited.

Du Plessis, Hester. 2014. *South Africa's journey of transformation through design*. Design Policy Conference, Cape Town, 17–18 October 2014.

Elk, Erica. 17 November 2014. *World Design Capital 2014 Presentation*. Cullinan Hotel, Cape Town.

Eva, Gary. April 2002. *Evaluation of a Vision for Cape Town by Stakeholder Groups*. Department of Sociology, University of Stellenbosch.

Fallan, Kjetil. 2010. *Design History. Understanding Theory and Method*. Berg, Oxford. Chapter 2. *Part 1 & Part 2*.

False Bay Echo. 4 December 2014. Babb, Glenn. *Design Capital*. Open letter to Muizenberg ward councillor David D'Alton, and his reply.

Fast Code Design. Undated. [Online]. *Design Thinking is a Failed Experiment, so what's next?* Available at: [www.fastcodesign.com/1663558/design-thinking-is-a-failed-experiment-so-whats-next](http://www.fastcodesign.com/1663558/design-thinking-is-a-failed-experiment-so-whats-next) - accessed 31 July 2015.

Ferreira, Antonio & Batey, Peter. 2011. On why planning should not reinforce self-reinforcing trends: a cautionary analysis of the compact-city proposal applied to large cities. *Environment and Planning B: Planning and Design 2011*, volume 38, pg 231-247.

Fiell, Charlotte & Fiell, Peter. 2013. *1000 Chairs*. Taschen

Fin24. 10 September 2015. [Online]. *Eskom power woes hit municipalities hard*. Available at: <http://www.fin24.com/Economy/Eskom-power-woes-hit-municipalities-hard-20150910?isapp=true> – accessed 15 September 2015.

Finland. Undated. [Online]. Available at: <http://finland.fi> - – accessed 27 December 2013.

Fischer-Kowalski, Marina. 2011. Analysing sustainability transitions as a shift between socio-metabolic regimes. *Environmental Transition and Societal Transitions*, 1 (2011), pp. 152–159.

Fioramonti, Lorenzo. 2013. *Gross Domestic Problem. The politics behind the world's most powerful number*. Zed Books Ltd, London.

Florida, Richard. 2002. *The Rise of the Creative Class – and how it is Transforming Leisure, Community and Everyday Life*. Basic Books, New York.

Flyvbjerg, Bent. 2011. "Case Study", in Norman K Denzin and Yvonna S Lincoln, eds., *The Sage Handbook of Qualitative Research*, 4<sup>th</sup> Edition, Thousand Oaks, CA, Sage Publications, 2011, chapter 17, pp 301-316.

Frost and Sullivan. 2014. [Online]. *Top Mega trends 2025*. Available at: [http://c.ymcdn.com/sites/www.dmi.org/resource/resmgr/London\\_2014/EU14Singh.pdf](http://c.ymcdn.com/sites/www.dmi.org/resource/resmgr/London_2014/EU14Singh.pdf) - accessed 12 December 2014.

Fuad-Luke, Alistair. 2009. *Design Activism: beautiful strangeness for a sustainable world*. Earthscan, London.

Fuller, Buckminster, R. 1970. *Utopia or Oblivion: the prospects for Humanity*. Allen Lane, London.

Future Cape Town: Undated. [Online]. Available at: [futurecapetown.com/](http://futurecapetown.com/) - accessed 5 February 2015.

Future Managers. Undated .[Online]. *Design, Grades 10, 11, 12*. Available at: [www.futuremanagers.com/ebooks](http://www.futuremanagers.com/ebooks) - accessed 13 June 2015.

Gasson, B. 2002. *The Ecological Footprint of Cape Town: Unsustainable Resource Use and Planning Implications*. Paper read at the National Conference of the South African Planning Institution, 18-20 September 2002, Durban.



- Gehl, Jan. 2010. *Liveable Cities*. Washington DC, Island Press. [Published simultaneously in Danish, English and Chinese].
- Geodesign Torino. Undated. [Online]. *Torino Geodesign*. Available at: <http://www.cluster.eu/torino-geodesigntorino-geodesign/> - sourced 27 December 2013.
- Getty Thesaurus of Geographic Names.
- Glaser, B.G. 1992. Basics of Grounded Theory Analysis: *Emergence vs Forcing*. Sociology Press, Mill Valley, CA.
- Glaser, B.G. & Strauss, A.L. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine de Gruyter, New York, NY.
- Gilbert, R., Stevenson, R., Girardet, H. & Stren, R. 1996. *Making Cities Work*. Earthscan Publications, United Kingdom.
- Gilchrist, A. 2004. *The Well-Connected Community*. Chapter 7. Complexity and the well-connected community, pg 85-96. Bristol, The Policy Press.
- Gilgun, J F. 2005. Qualitative Research and Family Psychology, *Journal of Family Psychology*, 19:1, pp 40-50.
- Gill, G. 2002. Landscape as Symbolic Form: Remembering Thick Place in Deep Time. *Critical Horizons* 3:2, 177-199. Leiden, Koninklijke Brill NV.
- Giugni, Marco G. 1998. Was it worth the Effort? The Outcomes and Consequences of Social Movements. *Annual Review of Sociology*, 1998:371-393.
- Godin, Seth. 2015. *The End of Geography*. [sethgodin.typepad.com/seths\\_blog/2015/01/the-end-of-geography.html](http://sethgodin.typepad.com/seths_blog/2015/01/the-end-of-geography.html)
- Gorgens, T. Undated, but post-2008. *Making the right to the city real in South Africa*. Isandla Institute. <http://www.afesis.org.za/Sustainable-Settlements-Articles/making-the-right-to-the-city-real-in-south-africa>.
- Goven, Gita. 2010. Kosovo informal settlement upgrade. Sustainability towards dignified communities. Pieterse, Edgar (Ed). 2010. Chapter 11. *Counter-Currents - Experiments in sustainability in the Cape Town region*. Cape Town, Jacana Media.
- Graham, S. and Marvin, S. (2001) *Splintering Urbanism. Networked infrastructures, technological mobilities and the urban condition*, London and New York: Routledge.
- Graham, Stephen. 2002. Bridging Urban Digital Divides? Urban Polarisation and Information and Communications Technologies (ICTs). *Urban Studies*, Vol. 39, No. 1, 33– 56.
- Gray, J. 2002. Foreword to the 2002 edition. In *False Dawn: the delusions of global capitalism*. Granta: London. (pp xi-xxiii).
- Green Talent. Undated. [Online]. *Western Cape Government launches 110% Green Campaign*. Available at: <http://www.greentalent.co.za/2012/06/western-cape-government-south-africa-launched-110-green-campaign/> - accessed 15 December 2014.
- GroundUp. 25 February 2015. [Online]. *Child rape case - how poor families struggle for justice*. [http://www.dailymaverick.co.za/article/2015-02-25-groundup-child-rape-case-how-poor-families-struggle-for-justice/#.Vev8B40w\\_ug](http://www.dailymaverick.co.za/article/2015-02-25-groundup-child-rape-case-how-poor-families-struggle-for-justice/#.Vev8B40w_ug) – accessed 6 September 2015.
- Guy, S. & Marvin, S. (2001). Urban Environmental Flows: Towards a New Way of Seeing. In Guy, S., Marvin, S. and Moss, T. (eds.) *Urban infrastructure in transition: Networks, Buildings, Plans*. London, Earthscan, pp 22-37.

- Gyorgy Kepes. 1965. *The nature and art of motion*. George Braziller, Inc, New York.
- Hall, Peter. 1998. *Cities in Civilization*. London, Weidenfeld & Nicolson.
- Hall, Peter. 1966. *The World Cities*. New York, McGraw-Hill, World University Library, pg. 7.
- Harvey, David. 2008. The Right to the City. *New Left Review* 53, September-October 2008.
- Harvey, David. 2007. *A Brief History of Neoliberalism*. New York, Oxford University Press.
- Harvey, David. 2003. *The New Imperialism*. Oxford, Oxford University Press.
- Harvey, David. 1973. *Social Justice and the City*.
- Harris, Daniel. 2000. *Cute, Quaint, Hungry and Romantic: The Aesthetics Of Consumerism*. New York, Basic Books.
- Hattingh, J. 2001. Conceptualising Ecological Sustainability and Ecologically Sustainable Development in Ethical Terms: Issues and Challenges. *Annale*, 2.
- Haw, Penny. 28 July 2014. *Enduring legacy of design year*. [www.bdlive.co.za/life/2014/07/28/enduring-legacy-of-design-year](http://www.bdlive.co.za/life/2014/07/28/enduring-legacy-of-design-year).
- Held, D. 2004. *Globalisation: The Dangers and the Answers*. openDemocracy: University of Sussex. [www.openDemocracy.net](http://www.openDemocracy.net).
- Helgeland, Brian. 2001. *A Knight's Tale*. Film released by Columbia Pictures.
- Heller, Susan. 1986. *Raymond Loewy*. New York Times.
- Heskett, John. 2002. *Toothpicks and Logos. Design in Everyday Life*. Oxford University Press.
- Huang, Tao & Anderson, Eric. 2011. *Understand Complex Design Problems using Systems Thinking*. Handbook of research on trends in product design and development: technological and organisational perspectives, Chapter 20. Silva, Arlindo and Simões, Ricardo (Eds).
- IBM. Undated. [Online]. *Smart Cities*. Available at: : [www.ibm.com/smartercities](http://www.ibm.com/smartercities) - accessed 16 June 2013.
- ICSID. Undated. [Online]. Available at: [http://www.icsid.org/news/year/2010\\_news/articles1263.htm](http://www.icsid.org/news/year/2010_news/articles1263.htm) - accessed 27 December 2013.
- Ikhayalami. Undated. [Online]. *Re-Blocking Of 450 Shacks, BM Section, OR Tambo, Khayelitsha*. <http://www.ikhayalami.org/projects/bm-section-disaster-response-re-blocking-450-shacks/> - accessed 10 December 2014.
- IOL website. 30 May 2014. [Online]. *Museum gets off the ground*. Available at: [http://www.iol.co.za/capetimes/museum-gets-off-the-ground-1.1696203#.VgThSI0w\\_ug](http://www.iol.co.za/capetimes/museum-gets-off-the-ground-1.1696203#.VgThSI0w_ug) – accessed 25 Sept 2014.
- IOL. 16 May 2011. [Online]. *16 Hurt in land grab clash*. Available at: [http://www.iol.co.za/news/south-africa/western-cape/16-hurt-in-land-grab-clash-1.1069524#.Vev-940w\\_ug](http://www.iol.co.za/news/south-africa/western-cape/16-hurt-in-land-grab-clash-1.1069524#.Vev-940w_ug) – accessed 15 May 2014.
- Isandla Institute / Open Society Foundation. 2007. The N2 Gateway Project: Fiasco or Model for future South African cities? *Monograph 11*. 2007.

Jackson, Tim. 2013. *What it takes to seed a sustainability revolution. Prosperity without Growth*. Cambridge Distinguished Lecture Series.

Jacobs, Jane (1961). *The Death and Life of Great American Cities*. New York: Vintage.

Judkins, Rod. 2014. [Online]. *Seduced by Beauty*. Available at: <http://www.psychologytoday.com/blog/connect-creativity/201411/seduced-beauty> - accessed 20 November 2014.

Julier, G. 2013. From design culture to design activism. *Design and Culture*, 5(2), 215-236.

Kasarda, John & Lindsay, Greg. 2011. *Aerotropolis. The Way We'll Live Next*. New York. Farrar, Straus and Giroux.

Koblitz, Carola. 5 April 2011.[Online]. *Transforming the city by design*. Available at: [www.capetown2014.co.za/2011/04/transforming-the-city-by-design/](http://www.capetown2014.co.za/2011/04/transforming-the-city-by-design/). Cape Argus 8. Accessed on April 2011.

Korea Times. 4 March 2009. [Online]. *Mt. Namsan Area Will Get Facelift*. Available at: [http://www.koreatimes.co.kr/www/news/nation/2009/03/113\\_40698.html](http://www.koreatimes.co.kr/www/news/nation/2009/03/113_40698.html) – accessed 12 July 2012.

Kotkin, Joel. 2014. [Online]. *The Most Influential Cities in the World*. Available at: <http://www.forbes.com/sites/joelkotkin/2014/08/14/the-most-influential-cities-in-the-world/> - accessed 17 August 2015.

Krausmann, Fridolin, Fischer-Kowalski, Marina, Schandl, Heinz and Eisenmenger, Nina. 2009. The global socio-metabolic transition: past and present metabolic profiles and their future trajectories. *Journal of Industrial Ecology* 12(5-6), 637-656.

Kunzig, Robert. 2012. [Online]. *The City Solution. Why cities are the best cure for our planet's growing pains*. National Geographic. Available at: [http://ngm.nationalgeographic.com/2011/12/city-solutions/kunzig-text/2?rptregcta=reg\\_free\\_np&rptregcampaign=20131016\\_rw\\_membership\\_n1p\\_intl\\_ot\\_w#](http://ngm.nationalgeographic.com/2011/12/city-solutions/kunzig-text/2?rptregcta=reg_free_np&rptregcampaign=20131016_rw_membership_n1p_intl_ot_w#) - accessed 19 December 2013.

Kunzmann, K.R. 2004. Culture, creativity and spatial planning. *Town Planning Review*, No. 4, pp 383–404.

Landry, Charles. 2008. *The Creative City: A Toolkit for Urban Innovators*. London, Earthscan.

Latour, Bruno. 2008. *A Cautious Prometheus? A Few Steps Toward a Philosophy of Design (with Special Attention to Peter Sloterdijk)*. Keynote lecture, Design History Society, Falmouth, Cornwall, 3 September 2008.

Lebow, Victor. 1955. Price Competition in 1955. *Journal of Retailing*, Spring issue.

Lemanski, Charlotte. 2006. Spaces of Exclusivity or Connection? Linkages between a Gated Community and its Poorer Neighbour in a Cape Town Master Plan Development. *Urban Studies*, Vol. 43, No. 2, 397–420, February 2006.

Levinson, Barry. 1997. *Wag the Dog*. Time-Warner.

Mabin, Alan. 2012. South African Capital Cities. Chapter 10 of *Capital Cities in Africa – Power and Powerlessness*. Therborn, Goran & Bekker, Simon (Eds). HSRC Press.

Malik, A. 2001. After modernity: contemporary non-western cities and architecture. *Futures* 33, 10, 873-882.

Manolis, J.C., Chan, K.M., Finkelstein, M.E., Stephens, S., Nelson, R.C., Grant, J.B. & Dombeck, M.P. 2008. Leadership: A New Frontier in Conservation Science. *Conservation Biology*, Vol 23, No 4, 879-886. USA, Society for Conservation Biology.

Manzini, Ezio. 2015. *Design, When Everybody Designs. An Introduction to Design for Social Innovation*. Massachusetts Institute of Technology.

Manzini, Ezio. 18 October 2014. *A Double Leap in Africa - Design Policies in the age of networks and sustainability*. Design Policy Conference Paper, Cape Town.

Manzini, Ezio. 1993. Il Design dei Servizi. La Grogettazione del prodotto-servizio. *Design Management* No 7.

Marais, H. (2001) *South Africa: Limits to Change. The Political Economy of Transition*. 2nd Edition, London & Cape Town: Zed Books & UCT Press.

Margolin, Victor. 2002. *The Politics of the Artificial*. The University of Chicago Press, Chicago.

Marine Industry Association of South Africa. Undated. [Online]. Available at : <http://www.miasa.co.za/> - accessed 5 February 2015.

Maritz, Christo, CEO, Infestation Design Studio. 28 November 2014. Interview.

Markussen, T. *The disruptive aesthetics of design activism: enacting design between art and politics*. Design Issues 29.1 (2013): 38-50.

Marks, R. & Bezzoli, M. 2000. *Palaces of Desire : Century City and the ambiguities of development*. Paper presented to the Urban Futures conference, Johannesburg, July 2000.

Mbeki, Moeletsi. 29 September 2015. *South Africa on the Brink: How Can the Slide Be Reversed?* The Distinguished Speakers Programme, UCT Graduate School of Business.

Metropolitan Museum of Art. Undated. [Online]. Available at: [http://www.metmuseum.org/toah/hd/eame/hd\\_eame.htm](http://www.metmuseum.org/toah/hd/eame/hd_eame.htm) - accessed 11 August 2015.

Michigan Modern. Undated. [Online]. Design that shaped America. Available at: [www.michiganmodern.org/designers/john-entenza](http://www.michiganmodern.org/designers/john-entenza) – accessed 13 March 2015.

Mouton, Johann. 2001. *How to Succeed in your Master's and Doctoral Studies*. Pretoria, Van Schaik Publishers.

MSM.com. Undated. [Online]. *Pictures of the Week 14 August 2015*. Available at: <http://www.msn.com/en-za/travel/news/pictures-of-the-week-14-august-2015/ss-BBIJyqz?ocid=SK2MDHP#image=39> – accessed 16 August 2015.

Mthente Research and Consulting Services. 17 September 2012. *Analysis of the Western Cape's Design Industry*. For the Cape Craft & Design Institute and the Department of Economic Development and Tourism, Western Cape Provincial Government.

Muller, Anneke. 2015. *Class notes: Flexible Zonings*.

Muller, Anneke. 2014a. *Class notes on video: Los Angeles and Post-Modernism*.

Muller, Anneke. 2014b. *Sustainability through the Lenses of Complexity Thinking and Triple-Loop Learning*. Association of African Planning Schools Conference.

Muller, Anneke. 2012a. *What is planning?* Unpublished class notes; Master's Programme in Sustainable Development Planning & Management, University of Stellenbosch.

Muller, Anneke. 2012b. *Beyond Compliance towards Creativity in South Africa: Planning Monitoring and Evaluation for Sustainability through the Lens of Complexity Thinking*. Association of Southern African Schools and Departments of Public Administration and Management Conference.

Muller, A. March 2006. *Sustainability and Sustainable Development as the Making of Connections: Lessons for Integrated Development Planning in South Africa*. Durban. SAPI Planning Africa Conference.

Mumford, Lewis. 1961. *The City in History: Its Origins, Its Transformation, and Its Prospects*. New York, Harcourt, Brace & World. Pg 464.

Mukheibir, P & Ziervogel, Gina, August 2006. *Framework for Adaptation to Climate Change in the City of Cape Town*. Prepared for the City of Cape Town: Environmental Resource Management.

Naidoo, Marjorie. 2013. *Applied Economics assignment*, Master's Programme in Sustainable Development Planning & Management, University of Stellenbosch. presented by Firoz Kahn.

Naidoo, Marjorie. 2012. *Complexity Theory & Systems Thinking assignment*, Master's Programme in Sustainable Development Planning & Management, University of Stellenbosch. presented by Rika Preiser.

Naidoo, Marjorie. 2011 *Sustainable Cities assignment*, Master's Programme in Sustainable Development Planning & Management, University of Stellenbosch. presented by Mark Swilling and Edgar Pieterse.

Naidoo, Marjorie. 2011. *Leadership and Environmental Ethics assignment*, Master's Programme in Sustainable Development Planning & Management, University of Stellenbosch. presented by Eve Annecke and Prof Johan Hattingh.

National Census 2011 – City of Cape Town. Available at:  
[www.statssa.gov.za/publications/P03014/P030142011.pdf](http://www.statssa.gov.za/publications/P03014/P030142011.pdf).

News 24. 19 May 2015. *200kg of illegal cable in informal settlement removed*.

Nussbaum, Bruce. Undated. [Online]. *Design Thinking Is A Failed Experiment. So What's Next?* Blog: <http://www.fastcodesign.com/1663558/design-thinking-is-a-failed-experiment-so-whats-next> – accessed 9 April 2015.

Ocean Cleanup. Undated. [Online]. Available at: [www.theoceancleanup.com](http://www.theoceancleanup.com) – accessed 12 May 2015.

Ogilvy & Mather website. <http://www.ogilvy.com/About/Our-History/David-Ogilvy-Bio.aspx> - accessed 2 April 2015.

Orozco, Juan Carlos. 2011. *A Comparative Analysis of Kenneth Frampton's Critical Regionalism and William J. R. Curtis's Authentic Regionalism as a means for evaluating two houses by Mexican architect Luis Barragan*. A Thesis for the degree Master of Science in Architecture, Kansas State University.

Palmer, Parker J. 2011. *Healing the Heart of Democracy - The Courage to Create a Politics Worthy of the Human Spirit*. San Francisco, Jossey-Bass.

Papanek, Victor. 1971. *Design for the Real World*.

Pechakucha Cape Town website: [www.pechakucha-capetown.com/](http://www.pechakucha-capetown.com/).

Perez, Carlota. October 2011. Conference Paper: *Development Policy Seminar*, UN, New York.

Perez, Carlota. 2010a. *The financial crisis and the future of innovation: A view of technical change with the aid of history*. Working Papers in Technology Governance and Economic Dynamics no. 28. Technological University of Tallinn, Estonia.

Perez, Carlota. 2010b. *The Advance of Technology and Major Bubble Collapses: Historical Regularities and Lessons for Today*. Engelsberg Seminar on The future of Capitalism, Ax:son Foundation, Sweden.

Perez, Carlota. 2007. Great Surges of Development and Alternative Forms of Globalization. Working Papers in Technology Governance and Economic Dynamics. Norway and Estonia: The Other Canon Foundation (Norway) and Tallinn University of Technology (Tallinn).

Perez, Richard. 17 November 2014. *World Design Capital 2014 Presentation*. Cullinan Hotel, Cape Town.

Perez, Richard, director of World Design Capital at the City of Cape Town. 26 September 2012. Interview.

Peter, Camaren & Swilling, Mark. 2011. *Sustainable, Low-Carbon Cities in the 21st Century –Making it Happen!* Position Paper for the Summit for the Urban Environmental Accords (October 11-13 2011 in Gwangju, South Korea). Commissioned by UNEP.

Pirie, Gordon. 2007. Reanimating a Comatose Goddess': Reconfiguring Central Cape Town. *Urban Forum* (2007) 18:125–151.

Princess Vlei. Undated. [Online]. *Save Princess Vlei Petition*. Available at: <http://www.princessvlei.org/petition/> - accessed 23 September 2013.

Provincial Government of the Western Cape. Undated. [Online]. Available at: <http://www.capetown.gov.za/en/wdc2014/Pages/default.aspx> - accessed 16 December 2014.

Pierce, C.S. 1929. Guessing. *Hound and Horn* (2), pp 267-282.

Pieterse, Edgar & AbdouMaliz, Simone. 2013. *Rogue Urbanism: Emergent African Cities*. Jacana Media, Pretoria.

Pieterse, Edgar. January 2010. *African Urbanisation, Trends and Challenges*. UCT Summer School.

Pieterse, Edgar. 2010. Introduction. Pg 12-25. In *Counter Currents: Experiments in Sustainability in the Cape Town region*. Pieterse, Edgar (Ed). Sunnyside, Jacana Media and University of Cape Town African Centre for Cities.

Pieterse, Edgar. 15 December 2009. *Post-Apartheid Geographies in South Africa: Why are Urban Divides so persistent?* Presentation to Leuven University, Interdisciplinary Debates on Development and Cultures: Cities in Development.

Pieterse, Edgar. 2008. *City futures: Confronting the crisis of urban development*. London: Zed Books.

Pieterse, Edgar. 2006. Building with Ruins and Dreams: Some Thoughts on Realising Integrated Urban Development in South Africa through Crisis. *Urban Studies*, Vol. 43, No. 2, 285–304, February 2006. Routledge, Taylor & Francis Group.

Pieterse, Edgar. 2003. *Grasping the breeze of time to come ... Exploratory thoughts on realising integrated urban development despite the forces of fragmentation*. Unpublished memo, Social Policy Department, London School of Economics and Isandla Institute, 23 July 2003.

Plascon Trend Talks. Undated. [Online]. Available at: <http://plascontrends.co.za/trend-talk/> - accessed 5 February 2015.

Popham, Peter. 2008. Essay 7: Tokyo 1987. Modernism, remade in Japan. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen.Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.

Ratcliffe, D.E. 2001. Analytic Induction as a Qualitative Research Method of Analysis. Retrieved by Kip Jones on January 1, 2004, from <http://don.ratcliff.net/qual/analytic.html> for *The Qualitative Report Volume 9 Number 1* March 2004 95-112 <http://www.nova.edu/ssss/QR/QR9-1/jones.pdf>.



- Rawoot, Ilham. 5 March 2014. [Online]. *Cape Town's Pretend Partnership*. Available at: [www.theconmag.co.za/2014/03/05/cape-towns-pretend-partnership/](http://www.theconmag.co.za/2014/03/05/cape-towns-pretend-partnership/) - accessed 11 March 2014.
- Raymond Loewy. Undated. [Online]. *Raymond Loewy*. Available at: <http://www.raymondloewy.com/about.html> - accessed 2 April 2015.
- Red Dot Online. Undated. [Online]. Available at: <http://en.red-dot.org/2672.html> - accessed July 2013.
- Reichertz, J. 2007. Abduction: The logic of discovery in grounded theory. *The Sage handbook of grounded theory*. Bryant, A and Charmaz, K (Eds.). London, Sage Publications, pp 214-228.
- Relph-Knight, Lynda. 2005. South Africa's design fest celebrates inclusiveness. *Design Week* 20. 9, March 3, 2005:6.
- Richardson, Kurt, A. 2004. Systems theory and complexity: Part 2. *Forum. E:CO Issue Vol. 6 No. 4 2004*, pp. 77-82.
- Rittel H.W.J. & Webber M.M. 1973. Dilemmas in a General Theory of Planning. *Policy Sciences* 4 (1973), 155-169. Amsterdam, Elsevier Scientific Publishing Company.
- Roberts, P., Ravetz, J. & George, C. (2009). *Environment and the City*. London: Routledge, Chapter 2, pg 26-58.
- Robinson, Jennifer. 2002. Global and World Cities: A View from off the Map. *International Journal of Urban and Regional Research*, Vol 26.3:531-54.
- Robinson, John. 2013. *What it takes to seed a sustainability revolution. Finding the Right Language*. Cambridge Distinguished Lecture Series.
- Romanelli, Marco. 2008. Essay 6: Milan 1957. Dreaming the dolce vita. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen.Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.
- Ruhi, Umar. Undated. [Online]. *Analytic Induction & Abductive Reasoning Modes for Theory Generation in the Qualitative Phase of Investigation*. De Groote School of Business, McMaster University. Available at: [http://www.umar.biz/research/phd/eCompanion/compositions/Induction\\_Abduction\\_Theory\\_Generation.pdf](http://www.umar.biz/research/phd/eCompanion/compositions/Induction_Abduction_Theory_Generation.pdf) - accessed 11 November 2014.
- Sachs, W. (Ed.). 2002. *The Joburg Memo: Fairness in a Fragile World*. Berlin, Heinrich Böll Foundation.
- Sacks, Jared. 2 Mar 2013. [Online]. 'Marikana' Unfreedom Day land occupation ends in violent Workers' Day eviction. Available at: <http://www.dailymaverick.co.za/article/2013-05-02-marikana-unfreedom-day-land-occupation-ends-in-violent-workers-day-eviction/> - accessed 3 May 2013.
- Sager, Tore. 2013. *Reviving Critical Planning Theory*. New York, Routledge.
- Samples, Bob. 1976. *The Metaphoric Mind: A Celebration of Creative Consciousness*. Jalmar Press.
- Samson, Kevin. 2015. [Online]. *City Stink Story*. Available at: <http://www.wavescape.co.za/surf-news/breaking-news/city-stink-story.html> - accessed 24 October 2015.
- Sassen, Saskia. 2010. A Savage Sorting of Winners and Losers: Contemporary Versions of Primitive Accumulation. *Globalizations*, 7: 1, 23-50.
- Sassen, Saskia. 2007. *A Sociology of Globalization*. New York, W.W. Norton.
- Sassen, Saskia. 2006. *Cities in the World Economy*. Thousand Oaks CA: Pine Forge Press.

- Sassen, Saskia. 1996. The state and the new geography of power. In Sassen, S., *Losing control? Sovereignty in an age of globalization*. Columbia University Press: New York. (pp1-32).
- Satterthwaite, D. 2007. *The scale of urban change worldwide 1950-2000 and its underpinnings*. London: International Institute for Environment and Development.
- Satterthwaite, D. (Ed). 2001. *Sustainable Cities*. London, Earthscan.
- Satterthwaite D. 1997. Sustainable Cities or Cites that Contribute to Sustainable Development? *Urban Studies*, 34: 1667-1691.
- Sinclair-Smith, Ken & Turok, Ivan. 2012. The changing spatial economy of cities: An exploratory analysis of Cape Town. *Development Southern Africa* Vol. 29, No. 3, September 2012. Routledge.
- Smith, Carin. 1 October 2015. [Online]. *SA has 6<sup>th</sup> most shopping centres in the world*. Available at: [www.fin24.com](http://www.fin24.com).
- South African Shack Dwellers International Alliance. 14 November 2013. [Online]. *Four Alliance projects recognised by World Design Capital 2014 committee*. Available at: <http://sasdialliance.org.za/blog/> - accessed 9 February 2014.
- Schmidt, David. The Dynamic of Leadership in Cape Town. Pg 28-43. In Pieterse, Edgar. (Ed). 2010. *Counter Currents: Experiments in Sustainability in the Cape Town region*. Sunnyside, Jacana Media and University of Cape Town African Centre for Cities.
- Schumacher, Ernest Friederich. 1973. *Small is beautiful*.
- Schutte, Gillian. 12 June 2013. [Online]. *The Politics of Shit and Why It Should Be Part of Public Protest*. Available at: <http://sacsis.org.za/site/article/1691> - accessed 13 September 2013.
- Shepard, Mark. 2011. *Sentient City*. Cambridge, Massachusetts, MIT Press, co-published with the Architectural League of New York.
- Siemens. Undated. [Online]. Green City Index. Available at: [www.siemens.com/entry/cc/en/greencityindex](http://www.siemens.com/entry/cc/en/greencityindex) – accessed 16 June 2013.
- Siemens: Undated. [Online]. *Sustainable Development*. Available at: [www.siemens.co.za/sustainable-development](http://www.siemens.co.za/sustainable-development) – accessed 16 June 2013.
- Skyttner, L. 2001. *General Systems Theory: Ideas and Applications*. NJ: World Scientific.
- Smith, Elizabeth A.T. 2008. Essay 5: Los Angeles 1949. Art in Action. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen.Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.
- Social Justice Coalition. Undated. [Online]. Available at: [www.sjc.org.za](http://www.sjc.org.za).
- Solar Plus. 25 June 2015. [Online]. *Low cost housing will get wind and solar power*. Available at: <http://solarplus.co.za/low-cost-housing-will-get-wind-and-solar-power/> - accessed 16 July 2015.
- Spice4Life News. 4 November 2014. [Online]. *Making a difference through the Better Living Challenge*. Available at: <http://www.spice4life.co.za/making-difference/better-living-challenge> - accessed 5 November 2014.
- Stake, R. E. (2008). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds), *Strategies of qualitative inquiry* (3rd ed., pp. 119–150). Thousand Oaks, CA, Sage Publications.

Stassen, Suné; Coetzer, Wilna; Crafford Este; Du Preez, Vikki; Lubbe, Isabel. Undated. *Design Grade 11*. Future Managers, Cape Town.

Stassen, Suné; Coetzer, Wilna; Crafford Este; Du Preez, Vikki; Lubbe, Isabel. Undated. *Design Grade 12*. Future Managers, Cape Town

Statistics South Africa. 2011. Census 2011 Municipal report - Western Cape.

Statistics South Africa. 2009. Labour Force Survey.

Strauss, A.L. & Corbin, J. 1998. *Basics of Qualitative Research: Grounded Theory Procedures & Techniques*. Thousand Oaks, CA, Sage Publications.

Strauss, A.L. & Corbin, J. 1990. *Basics of Qualitative Research: Grounded Theory Procedures & Techniques*. Newbury Park, CA, Sage Publications.

Stefano Maffei, 2005. *Innovation through service design, from research and theory to a network of practice. A users' driven perspective*. Joining Forces Conference, University of Art and Design Helsinki, September 22-24, 2005.

Sudjic, Deyan. 2008a. Essay 1: London 1851. Gathering a head of steam. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen, Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.

Sudjic, Deyan. 2008b. Essay 3: Dessau 1928. Seizing the day. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen, Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.

Sudjic, Deyan. 2008c. Essay 4: Paris 1931. Le Corbusier's machines for living. In *Design Cities 1851-2008. Eight moments that changed the world*. Billen, Nigel. (Ed). 2008. Catalogue for 2008 Design Cities Exhibition held in Istanbul Modern and the Design Museum, London. Mas Matbaacilik, Istanbul.

Sudjic, Deyan. 2008d. *The Language of Things*. London, Penguin Books.

Sullivan, Daniel. Undated. [Online]. *Honouring the work the city does*. Available at: [www.pivotdublin.com/blog/honouring\\_the\\_work\\_the\\_city\\_does/](http://www.pivotdublin.com/blog/honouring_the_work_the_city_does/).

Sustainable Cities Index. Undated. [Online]. Available at: <http://www.sustainablecitiesindex.com/> - 19 August 2015.

Sustainability Conference. 2013. *Impacts of Global Warming*. Website. London.

Swartz, Nicky. 17 November 2014. World Design Capital 2014 Presentation. Cullinan Hotel, Cape Town.

Swilling, Mark. 2013. Economic Crisis, Long Waves and the Sustainability Transition: An African Perspective. *Environmental Innovations and Societal Transitions*, 6:96-115.

Swilling, Mark. 2011. *A city of sustainable neighbourhoods*. Lecture notes.

Swilling, Mark. 2004. Rethinking the sustainability of the South African city. *Development Update*, 5 April 2005.

Swilling, M, Roux, P and Guyot, A. 2010. Agonistic Engagements: Difference, Meaning and Deliberation in South African Cities. *Complexity and Difference*. Cilliers, P. & Allen, R. (Eds.) Springer.

Swilling, Mark & Annecke, Eve. 2012. *Just Transitions. Explorations of sustainability in an unfair world*. New York, United Nations University Press.

The Mobile City. Undated. [Online]. *The urban culture of sentient cities*. Available at: [www.themobilecity.nl/2011/04/21/the-urban-culture-of-sentient-cities-from-an-internet-of-things-to-a-public-sphere-of-things/](http://www.themobilecity.nl/2011/04/21/the-urban-culture-of-sentient-cities-from-an-internet-of-things-to-a-public-sphere-of-things/) - accessed 16 June 2013.

Time Magazine, January 10, 1964. *Dymaxion American*.

Thackera, John. 2006. *In the Bubble*. Massachusetts Institute of Technology.

Thackara, John. 1988. *Design after modernism: beyond the object*. London: Thames and Hudson.

Telegraph . 2014. [Online]. *Eric Lanlard's Cape Town: My Kind of Town*. Available at: <http://www.telegraph.co.uk/travel/destinations/africaandindianocean/southafrica/capetown/10373004/Eric-Lanlards-Cape-Town-My-Kind-of-Town.html> - accessed 13 December 2014.

Telegraph. 2013.[Online]. *Cape Town leads best cities in the world*. Available at: [www.telegraph.co.uk/travel/travelnews/11270729/The-worlds-best-cities-in-pictures.html?frame=2746862](http://www.telegraph.co.uk/travel/travelnews/11270729/The-worlds-best-cities-in-pictures.html?frame=2746862) – accessed 13 December 2014.

Terreblanche, Sampie. 2012. *Lost in Transformation*. Sandton, KMM Review Publishing Company.

Terreblanche, Sampie. 2002. *The History of Inequality in South Africa, 1652-2002*. Scottsville, University of Kwa-Zulu Natal Press.

The Hill Consulting Group. Undated. [Online]. *The 10 Principles of Servant Leadership*. Available at: <http://www.hillconsultinggroup.org/assets/pdfs/articles/10principles-servant.pdf> - accessed 16 June 2015.

Tresser, T.1996. How do the Arts Build Communities? *Connecting Arts, Business and Community*. <http://comm-org.wisc.edu/papers96/arts.html> Accessed 20 September 2015.

Turok, Ivan, & and Vanessa Watson, Vanessa. 2001. Divergent Development in SA Cities: Strategic Challenges Facing Cape Town. *Urban Forum*, 2001, Vol. 12, No. 2, pp.119-138.

Veblen, Thorstein. 1857-1929; *The Theory of the Leisure Class*, Originally published New York: Macmillan, 1899.

UK Daily Mail. 4 March 2011. [Online]. *Libya's tent cities on Tunisia's border*. Available at: <http://www.dailymail.co.uk/news/article-1362559/Libyas-tent-cities-Tunisia-border-180k-refugees-try-flee-bloody-revolution.html> - 23 August 2015.

UNESCO. 20 November 2006. [Online]. *Backgrounder on Cultural Industries*. Available at: [http://www.unescobkk.org/fileadmin/user\\_upload/culture/Cultural\\_Industries/HK\\_Open\\_Forum/Backgrounder-FINAL.pdf](http://www.unescobkk.org/fileadmin/user_upload/culture/Cultural_Industries/HK_Open_Forum/Backgrounder-FINAL.pdf) - accessed 21 June 2012.

United Nations Development Programme. 2014. [Online]. *Human Development Report*. [hdr.undp.org/sites/all](http://hdr.undp.org/sites/all).

United Nations Department of Economic and Social Affairs (UN DESA). 2014. *World Urbanization Prospects*.

United Nations Department of Economic and Social Affairs/Population Division. 2006. *World Urbanization Prospects: The 2005 Revision*. New York, United Nations.

UN-HABITAT Global Urban Observatory 2008.

United Nations Human Settlements Programme (UN-HABITAT). 2012/2013. *State of the World's Cities 2012/2013. Prosperity of Cities*. UN\_HABITAT, Nairobi, Kenya. Malta, Progress Press Ltd.

United Nations Human Settlements Programme (UN-HABITAT). 2010/2011. *State of the World's Cities. Bridging the Urban Divide*. London, Earthscan.

United Nations Human Settlements Programme (UN-HABITAT). 2008/09. *State of the World's Cities. Harmonious Cities*. London, Earthscan.

United Nations Human Settlements Programme (UN-HABITAT). 2006/7. UN-Habitat State of the World's Cities. *Chapter 5: Urbanization : Cities as Centres of Growth / Cities the New Locus of Poverty*. [www.unhabitat.org. SOWC/06/07/B/Urb3](http://www.unhabitat.org/SOWC/06/07/B/Urb3).

United Nations Human Settlements Programme (UN-HABITAT). 2006/7. UN-Habitat State of the World's Cities. *Chapter 6: Slums, Past, Present, Future*. [www.unhabitat.org](http://www.unhabitat.org). SOWC/06/07/B/Slum1.

United Nations Refugee Agency (UNHCR). Undated. [Online]. *Figures on Refugees, Asylum-seekers, Stateless People*. Available at: <http://www.unhcr.org/pages/49c3646c11.html> - accessed 17 August 2015.

United Nations Office for Disaster Risk Reduction. 2012. *Making Cities Resilient Report*. New York, UNISDR Secretariat.

Urban Africa. 06/09/2013. *Wescape: Privatising the profits and socializing the risk?*

Urquhart, C, Lehmann, H. & Myers, M.D. 2009. Putting the 'theory' back into grounded theory: guidelines for grounded theory studies in information systems. *Information Systems Journal*.

Van Heyningen, E. January 2006. CAPE TOWN 2025. *Strategy for taking forward the issues identified by Cape Town 2025*. City of Cape Town, Information & Knowledge Management.

Veblen, Thorstein. 1899. *The Theory of the Leisure Class*.

Visit Finland. Undated. [Online]. Available at: [www.visitfinland.com](http://www.visitfinland.com) – accessed 27 December 2013.

Visit Helsinki. Undated. [Online]. Available at: [www.visithelsinki.fi/sites/visithelsinki.fi/files/files/Tiedotteet/EN/2012/120731\\_matkailutiedote\\_en\\_5604.pdf](http://www.visithelsinki.fi/sites/visithelsinki.fi/files/files/Tiedotteet/EN/2012/120731_matkailutiedote_en_5604.pdf) - accessed 12 December 2013.

Vitsoe. Undated. [Online]. Available at: <https://www.vitsoe.com/gb/about/good-design> - accessed 2 August 2014.

Wackernagel, M. & Rees, W. 1995. *Our Ecological Footprint*. Gabriola: New Society Publishers.

Walker, John. A. 1989. *Design History and the History of Design*. Pluto Press, London.

Watson, Vanessa. 2014. African urban fantasies: dreams or nightmares? *Environment and Urbanization*, 2014 26: 215, Sage Publications.

Watson, Vanessa. 2002. *Change and Continuity in Spatial Planning: Metropolitan Planning in Cape Town under Political Transition*. London and New York, Routledge.

WDC Helsinki 2012 media service. November 2011. *WDC Helsinki and Finnish society*.

WDC Helsinki 2012. 25 October 2012. [Online]. *Finland to become a leader in measuring the effects of design*. Available at: [mailer.gruppo.fi/t/ViewEmail/r/](mailto:mailer.gruppo.fi/t/ViewEmail/r/) - accessed 14 June 2013.

WDC Helsinki 2012: 31 July 2012. [Online]. *World Design Capital Helsinki 2012 breaks traveling records*.

WDC Helsinki 2012. 31 October 2012.[Online]. *WDC Helsinki 2012 promotes Finnish design extensively abroad*. [www.wdchelsinki2012.fi/](http://www.wdchelsinki2012.fi/) mailer.gruppo.fi/t/ViewEmail/r/.

WDC Seoul. Undated. [Online]. Available at: [www.wdcseoul.kr](http://www.wdcseoul.kr) – accessed 12 July 2012.

Wendt, Matthias. 2009. The Importance of Death and Life of Great American Cities (1961) by Jane Jacobs to the Profession of Urban Planning. *New Visions for Public Affairs, Volume 1*, Spring 2009.

Wenz, Laura. Undated, circa 2009. *The rise of the creative economy in Cape Town and its implications for urban development*. Department of Geography, Westfälische Wilhelms-Universität, Münster.

Western Cape Economic Partnership. Undated. [Online]. Available at: [www.wcedp.co.za/](http://www.wcedp.co.za/) - accessed 13 March 2014.

Western Cape Provincial Government: Department of Economic Development & Tourism. 23 July 2009. *East City Design Initiative*. Unpublished report.

Western Cape Provincial Government: Department of Economic Development & Tourism, and the Cape Craft + Design Institute. 2013. *Design: Driving competitive advantage in the Western Cape. A strategy for design to unlock innovation*.

Western Cape Provincial Government. 18 September, 2013. [Online]. *Premier Zille launches Western Cape Design Strategy*. Available at: [www.westerncape.gov.za/news/premier-zille-launches-western-cape-design-strategy](http://www.westerncape.gov.za/news/premier-zille-launches-western-cape-design-strategy) - accessed 12 December 2014.

Western Cape Provincial Government. 2013. [Online]. *Premier's Council on Skills*. Available at: [www.westerncape.gov.za/general-publication/premier%E2%80%99s-council-skills](http://www.westerncape.gov.za/general-publication/premier%E2%80%99s-council-skills) – accessed 11 December 2014.

Western Cape Provincial Government. 18 September 2013. [Online]. *PSF: Design Skills Gap Analysis*. Available at: <http://www.kaiseredp.com/wp-content/uploads/2014/11/skills-gap-analysis-oct-2013.pdf> - accessed 9 December 2014.

Western Cape Provincial Government. June 5 2012. [Online]. *Western Cape Government launches 100% Green Campaign*. Available at: [www.greentalent.co.za/2012/06/western-cape-government-south-africa-launched-110-green-campaign/](http://www.greentalent.co.za/2012/06/western-cape-government-south-africa-launched-110-green-campaign/) - accessed 15 December 2014.

Western Cape Provincial Government. Undated. [Online]. *Dept of Economic Development and Tourism Annual Report 2012-13*. Available at: [www.westerncape.gov.za/assets/.../dedat\\_annual\\_report\\_lowres\\_web.pdf](http://www.westerncape.gov.za/assets/.../dedat_annual_report_lowres_web.pdf).

Whale Cottage. 11 April 2015. [Online]. *Cape Town World's 3rd Best Food City in Condé Nast Traveler's Readers' Choice Awards 2014!* Available at: [www.whalecottage.com/blog/cape-town/cape-town-worlds-3rd-best-food-city-in-conde-nast-travelers-readers-choice-awards-2014/](http://www.whalecottage.com/blog/cape-town/cape-town-worlds-3rd-best-food-city-in-conde-nast-travelers-readers-choice-awards-2014/) - accessed 25 August 2015.

Wolff, Heinrich. 4 February 2015. *Architecture and Social Cohesion*. Talk at the CCDI Creative Exchange.

Woodham, Jonathan. 1997. *Twentieth-Century Design*. Oxford University Press.

Woodward, J.B. & Funk, C. 2010. Developing the artist-leader. *Leadership*, No 6, 295-309. Norfolk, Page Bros Ltd.

World Cities Summit. Undated. [Online]. *Mayor's Forum*. Available at: <http://www.worldcitiesummit.com.sg/mayorsforum/programme-outline> - accessed 16 June 2013.

World Bank. 1993. *South Africa urban economic mission: Aide mémoire*. Washington, DC.

World Design Capital. Undated. [Online]. *Sample Application – World Design Capital 2010*. [www.worlddesigncapital.com](http://www.worlddesigncapital.com), accessed 12 May 2012.



World Design Capital. Undated. [Online]. *World Design Capitals*. Available at: <http://www.worlddesigncapital.com/world-design-capitals/current-capital-helsinki/> - accessed 11 September 2011.

World Design Capital. Undated. [Online]. *Seoul, South Korea*. Available at: [www.worlddesigncapital.com/world-design-capitals/past-capital-seoul-south-korea/](http://www.worlddesigncapital.com/world-design-capitals/past-capital-seoul-south-korea/) - accessed 12 July 2012.

World Design Capital. Undated. [Online]. *Why Torino*. Available at: [www.worlddesigncapital.com/world-design-capitals/past-capitals/why-torino/](http://www.worlddesigncapital.com/world-design-capitals/past-capitals/why-torino/) - accessed February 2012.

World Design Capital. Undated. [Online]. *What is the WDC*. Available at: [www.worlddesigncapital.com/what-is-the-wdc/](http://www.worlddesigncapital.com/what-is-the-wdc/) - accessed 6 December 2012.

World Design Capital Cape Town website: *Cape Town Awarded World Design Capital 2014 – A Win For Cape Town, South Africa and The African Continent*. 26 October 2011. <http://www.capetown2014.co.za/2011/10/cape-town-awarded-world-design-capital-2014-%E2%80%93-a-win-for-cape-town-south-africa-and-the-african-continent/>.

World Design Capital Cape Town. 2013. [Online]. *WDC 2014 and your project*. Available at: [wdccapetown2014.com/submissions/wdc-2014-and-your-project/](http://wdccapetown2014.com/submissions/wdc-2014-and-your-project/) - 23 April 2013.

World Design Capital Cape Town. 2013. [Online]. *Cape Town NPC*. <http://wdccapetown2014.com/about/cape-town-npc/> - accessed 23 April 2013..

World Design Cape Town. Undated. [Online]. *Design Policy Conference Report*. Available at: <http://www.wdccapetown2014.com/profiles/Design-Policy-Conference-Report.pdf> - accessed 2 December 2014.

World Economic Forum. January 2011. *Global Risks 2011 6th Edition*. An initiative of the Risk Response Network.

Worldometers website: <http://www.worldometers.info/world-population/>.

Wyly, Elvin. October 2012. Mapping Global Firms and World Cities. *Geography 350*, Introduction to Urban Geography.

XKollektiv (Protest Art Collective). Undated. [Online]. Available at: <http://xkollektiv.wordpress.com/> - accessed 17 December 2014.

Yeld, John. January 14 2014. *Yay and Nay for major Cape projects*. [http://www.thepost.co.za/yay-and-nay-for-major-cape-projects-1.1631272#.UtlNvc\\_xvIV](http://www.thepost.co.za/yay-and-nay-for-major-cape-projects-1.1631272#.UtlNvc_xvIV).

YouTube.com. Undated. [Online]. *Can we plan space for creativity*. <http://www.youtube.com/watch?v=w6vLLuKh90&lr=1> – accessed 17 September 2014.

YouTube.com. Undated. [Online]. *Cape Town as the capital of cool*. <http://www.youtube.com/watch?v=9bTjuEH4EBM&lr=1> – accessed 17 September 2014.

YouTube.com. Undated. [Online]. *Rapid Transit by Design*. <http://www.youtube.com/watch?v=klR52T6VyZM&lr=1>. – accessed 17 September 2014.

Znaniecki, F. 1968. *The Method of Sociology*. Holt, Rinehart & Winston, New York, NY.

Znaniecki, F. 1934. *The Method of Sociology*. Farrar & Rinehart, New York, NY.

## Appendices

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## APPENDIX A

### First Things First Manifesto 2000

As far back as 1964 – interestingly pre-dating Papanek’s book, *Design for the Real World*, a group of 22 visual communicators, graphic designers, and art directors signed a ‘First things First Manifesto’, expressing a call for a change of priorities, and following a different motivation for designing. As images of mountains of landfills by the ‘throw-away society’ brought home the devastating fallout of Consumerism, a later group of 33 visual communicators, graphic designers, and art directors in 2000 again affirmed their allegiance to this Manifesto. However, these designers need to sell their services in the marketplace – and it is difficult to imagine that a degree of compromise does not occur.

#### Full script:

We, the undersigned, are graphic designers, art directors and visual communicators who have been raised in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative, effective and desirable use of our talents. Many design teachers and mentors promote this belief; the market rewards it; a tide of books and publications reinforces it.

Encouraged in this direction, designers then apply their skill and imagination to sell dog biscuits, designer coffee, diamonds, detergents, hair gel, cigarettes, credit cards, sneakers, butt toners, light beer and heavy-duty recreational vehicles. Commercial work has always paid the bills, but many graphic designers have now let it become, in large measure, what graphic designers do. This, in turn, is how the world perceives design. The profession’s time and energy is used up manufacturing demand for things that are inessential at best.

Many of us have grown increasingly uncomfortable with this view of design. Designers who devote their efforts primarily to advertising, marketing and brand development are supporting, and implicitly endorsing, a mental environment so saturated with commercial messages that it is changing the very way citizen-consumers speak, think, feel, respond and interact. To some extent we are all helping draft a reductive and immeasurably harmful code of public discourse.

There are pursuits more worthy of our problem-solving skills. Unprecedented environmental, social and cultural crises demand our attention. Many cultural interventions, social marketing campaigns, books, magazines, exhibitions, educational tools, television programmes, films, charitable causes and other information design projects urgently require our expertise and help.

We propose a reversal of priorities in favour of more useful, lasting and democratic forms of communication – a mindshift away from product marketing and toward the exploration and production of a new kind of meaning. The scope of debate is shrinking; it must expand. Consumerism is running uncontested; it must be challenged by other perspectives expressed, in part, through the visual languages and resources of design.

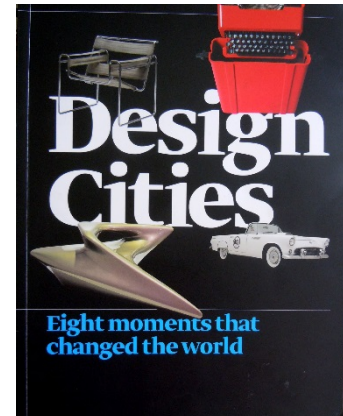
In 1964, 22 visual communicators signed the original call for our skills to be put to worthwhile use. With the explosive growth of global commercial culture, their message has only grown more urgent. Today, we renew their manifesto in expectation that no more decades will pass before it is taken to heart.

<http://www.eyemagazine.com/feature/article/first-things-first-manifesto-2000> - accessed 12 Sept 2014.

## APPENDIX B

### Design Cities

In 2008 a Design Cities Exhibition, curated by Deyan Sudjic, director of the London Design Museum, was presented first in the Istanbul Modern museum, and then in the Design Museum, London. Certain cities were presented as worthy of being called 'Design Cities', at particular moments in time – 'moments that changed the world'. In this exhibition, eight cities were showcased: London in 1851; Vienna in 1908; Dessau in 1928; Paris in 1931; Los Angeles in 1949; Milan in 1957; Tokyo in 1987; and London again in 2008.



### London 1851. From the turmoil - the birth of modern Design

London in 1851 was in the throes of the Industrial Revolution and the 1<sup>st</sup> Wave of Urbanisation. Thousands of rural people and foreigners had streamed into the city, to join the ranks of factory workers. With 2 million inhabitants, London was the largest city in the world, and twice the size of Paris.

These years are described as 'deeply traumatic for British society' (Sudjic 2008a); old skills were becoming obsolete, old social structures were being overturned, and men, women and children were being subjected to harsh working and crowded living conditions with appalling sanitation, an easy breeding ground for disease such as cholera. The natural countryside around the cities and close to mineral resources was being replaced by stoking factories and smoke; and the content of labour lost its sense of achievement, as machines replaced humans in production, and human labour became repetitive, mechanical, and de-skilled.



London 1850s. [www.lifeinlakehavas.com](http://www.lifeinlakehavas.com)

Britain was undergoing profound social, technological, political, and economic changes. Transport modes were changing from the horse to railroads, cars, canals, and an underground rail system; housing in London spread out in rows upon rows of terraced housing; huge municipal infrastructure improvements were being done to roads, sewers, water supply and street lighting; political discourse raged between capitalist and socialist theories and critique. Unions were formed to represent the poor of the labour market against wealthy factory owners (Sudjic 2008a).

There was also a profound change in the function of Marketing. The growing middle class, and the abundance and affordability of factory products led to the democratisation of objects. Not only was the production of products being reinvented, but also the mechanisms of marketing and distribution: large departmental stores, advertising messages (via the printing press), new marketing techniques, and new financial tools, were giving birth to a new kind of consumer and “a new kind of consumer society” (Sudjic 2008a).

Before the Industrial Revolution, there was no ‘distance’ between designer and maker – an object bore the signature skill of its creator, reflecting the form of functionality and of historic evolution. Manufacturing separated the function of design and making – hand-manufacturing was effectively de-skilled, and the traditional status of tradesmen destroyed. Now a designer would determine what a machine would do, and the machine was overseen by unskilled workers.

This was a time of unprecedented invention; in this new Age of Manufacture, Britain had nothing to copy from. New products, new methods, new forms, new principles, had to be designed. What did the modern world look like? What did trains and train engines and train stations look like? If they could not visualise it, they adopted old forms, such as Greek temple architecture or Gothic cathedrals. The results were often viewed with dismay. “The crucial question for design in the 19<sup>th</sup> Century was how to find a language that was appropriate for machine-made objects, rather than using machines to copy forms that had evolved from handcraft ” (Sudjic 2008a).

In my view, this period was the birth of DESIGN as we now begin to understand it. The activity of design specialised in different expressions, developed into careers, and took on both commercial and cultural significance. Aside from creating new products (object design), designers had to communicate how that product was to be used (communication design), how it was to be placed in the home (interior design and industrial design), how it fitted in with the owner’s lifestyle (lifestyle design), and what new status that product brought to the owner (context design).



London had a growing, immigrant, cosmopolitan population, with a vibrant offering of shopping, entertainment, culture, education, and financial institutions – all fertile ground for the growth of the design profession and industry. It also had a stable government, and a port for trade.

As with all great movements, there were a few key individuals who played crucial roles in establishing the building-blocks for this fledgling industry. And what they established was an exhibition to promote, a school to educate, and a museum to protect (Sudjik 2008a). One of these individuals was Henry Cole – the first General Superintendent of the Department of Practical Art, “set up by the government to improve standards of art and design education in Britain”. As a result the previous 1837 Government School of Design was restructured as the National Art Training School in 1853, later to be called the Royal College of Art in 1896, which exists until this day. Cole was the driving force behind the Great Exhibition<sup>17</sup> of 1851 in London.



Henry Cole. *clasehistoriadelobjeto.blogspot.com*

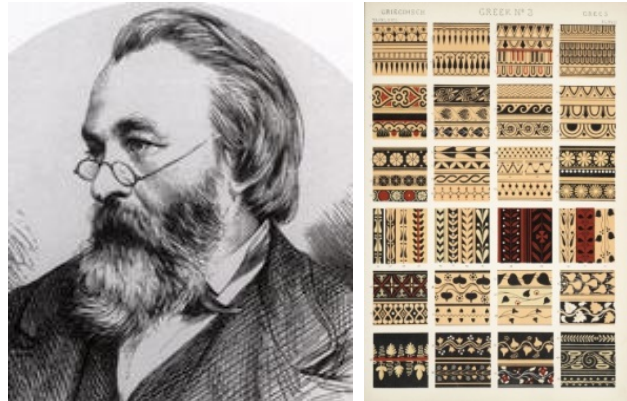


The Crystal Palace, 1851. *www.studyblue.com*

<sup>17</sup> In the unfolding of the Industrial Era, the Great Exhibition of 1851 played a most vital role. It was the world's first international fair, it was visited by 6 million people in 6 months, it was housed in the Chrystal Palace, a pre-fabricated modular structure of most amazing dimensions, using metal and glass, built in record time, able to contain full-grown trees. The Chrystal Palace was itself a testimony to British technology and design proficiency – built in 8 months, by 2000 men, over 500 metres long, high roofs, using 4 500 tons of iron and 293 000 panes of glass – “the embodiment of the new, industrial system’ – at the same time that a gothic revival was being experienced as a counter response to Industrialisation. It housed steam engines, Jacquard looms, bentwood furniture, Chinese exotica, and a great variety of products pouring forth from factories. With royal patronage, the Great Exhibition was intended for British designers to face the design challenges from other countries, and to improve their own skill and competitiveness (Sudjik 2008a).



This Exhibition, housed in the specially constructed Chrystal Palace, will forever stand as one of the most important events in the history of Design. Owen Jones, publisher of *The Grammar of Ornament* in 1856 (a dictionary of decorative design elements), supervised the construction and the curation of the Exhibition. At the same time, in 1852, the first design museum in the world was founded, i.e. the Victoria and Albert Museum (Sudjic 2008a).

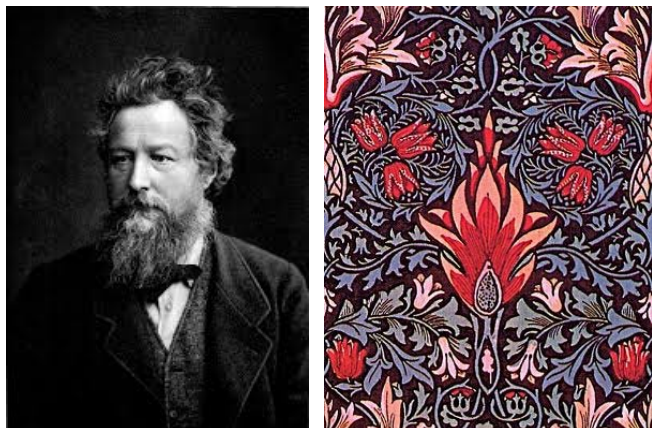


Owen Jones. / A page from the *Grammar of Ornament*.  
[www.propertyweek.com](http://www.propertyweek.com) | [unit607.com](http://unit607.com)

These three actions – a design school, an exhibition, a museum - set the new profession of Design firmly on its future path.

In the 1850's Britain was facing a conceptual struggle. While abandoning the traditional objects, the production methods, and the design language of the past, it had not yet developed a new convincing language for manufactured goods. Two designers gained prominence for adopting very different stances in response to this.

The one was William Morris, who, in sharp reaction to mass-manufactured goods, smoking factories, and the radical changes taking place in British society, founded the Arts and Crafts Movement, clinging nostalgically to a naturalistic, hand-made art-form. Ironically, while Morris fought to restore the dignity of craftsmanship, the

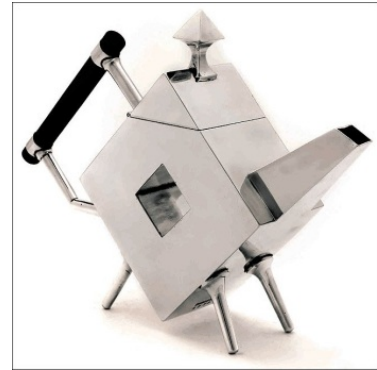


William Morris. / A William Morris textile design.  
[sophia.smith.edu](mailto:sophia.smith.edu) / [mckenziemarcotte.wordpress.com](http://mckenziemarcotte.wordpress.com)

working class were not the ones to benefit from his work, as his expensive, slow-

produced textiles and carpets could only be afforded by the wealthy. Morris is famous for refusing to enter the Chrystal Palace to view the Great Exhibition (Sudjic 2008a).

The other designer was Christopher Dresser, a prodigy from the Royal College of Art, who has the distinction of being called the first industrial designer. Dresser took on the challenge of new materials (metal and glass with ceramics) new production methods, and new simpler lines and shapes, producing prolific designs for everything of use in the home – “from textiles to wall coverings, ceramics, glassware and metalware” (Sudjic 2008a).



*Christopher Dresser. Kettle, by Dresser.*  
[www.historicaldesign.com](http://www.historicaldesign.com) | [www.2ljworld.com](http://www.2ljworld.com)

Out of the tumultuous technological, social and political events of the Industrial Revolution, the profession of Design was born. Other cities would take up the batten to further its progress.

## Vienna 1908. A city at odds with itself

It was a moment in time that would never come again. Vienna, benefitting as the capital city from the loose conglomerate of 13 present-day nations that then formed the Habsburg Empire, was the centre of attraction for the young and talented; at its peak in 1910 the population of Vienna was 2.03 million, almost doubling in the 20 years from 1890. It was multi-cultural, multi-lingual, home to every social class, and also the 3rd largest Jewish city in Europe. Vienna became the “preeminent centre of art, architecture, music, philosophy and psychoanalysis” (Beyerle 2008). This unique co-existence of culture and science had a major impact on the development of Modernism in Europe.



*Vienna 1900s.* [www.jsydneyjones.com](http://www.jsydneyjones.com)

The wake of Industrialisation gave rise to a more affluent middle and upper-middle class, driven by “the social need for conspicuous display” (Beyerle 2008). Thorstein Veblen’s *Theory of the Leisure Class* was the first to use the term ‘Conspicuous Consumption’<sup>18</sup>.

Vienna’s vibrant city economy and culture provided this platform for a new social mobility “made possible by talent, achievement and success, and supported by suitable mentors and social networks” (Beyerle 2008), which led to a search for new lifestyles, and new attitudes to life. The new language presented itself in faster transport mobility (the train system) and faster production methods. Objects, such as Michael Thonet’s bentwood chairs, and in particular Thonet No 14, became the symbol of a lifestyle that was lighter, faster, more fluid, more mobile. And thus Modernism was born.



Thonet No. 14. [www.archiexpo.com](http://www.archiexpo.com)

But it was not without birth-pangs. Neither the hierarchical Roman Catholic religious structures, nor conservative-minded Emperor Franz Joseph 1 (aged 80 in 1910), encouraged the New or Change. The conflict of creativity and pragmatism, action and stagnation, provided fertile ground for intense debate, dissent and departures from the norm.

And once again, it was a group of *avant-garde* artists and architects, turned designers, who led the movement. At times agreeing, at times diverging, pushing into the new, or lapsing into the familiar, this group drove the transition, with the extraordinary creation of new objects in new forms and new materials (architecture, furniture, metalwork, ceramics, glass, textiles, jewellery, and graphic design).

Josef Hoffmann, founding member of both the Vienna Secession (a group of artists staging alternative art exhibitions) and the Wiener Werkstätte (a collaborative production group) at first favoured a flowery Art Nouveau style, while Otto Wagner surged ahead to “the logic of a modern utilitarian style” (Beyerle 2008).

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<sup>18</sup> According to Veblen, conspicuous display firstly imitates what the existing elite have and do, and then seeks a new language, a new expression (in signs and forms) – of objects, of social status, of education, of wealth; that is, new symbols for a new sense of identity (Veblen 1899).

Wagner, an architect, urban planner, designer of furniture and other objects, and professor at the Academy of Fine Arts, departed from the need to follow historic styles, experimenting with new methods and materials for construction. Other famous



Otto Wagner. | *The Post Office Savings Bank.*  
[thedissatisfactory.blogspot.com](http://thedissatisfactory.blogspot.com) | [quintinlake.photoshelter.com](http://quintinlake.photoshelter.com)

names of the time were Adolf Loos, Joseph Maria Olbrich, Koloman Moser, and Gustav Klimt.

At the end of World War 1, the empire fell apart – consisting as it did, of a loose conglomeration of nations, with no natural or national ties or loyalties – and Vienna lost its status and confidence. Austria lost its industries, never to be regained. Most of the well-known designers emigrated, while others sunk into obscurity. While Vienna had been instrumental in giving birth to Modernism through many disciplines, it never became a truly modern city (Beyerle 2008).

## Dessau 1928. Quite by chance

The claim-to-fame for this quiet town is that, for a few brief years, it housed one of the most famous, forward-thinking design schools, the Bauhaus, led by a group of extra-ordinarily visionary people, and drawing to itself a group of highly talented students.

In Nazi-Germany, the Bauhaus design school moved, just one step ahead of the war machine. In 1925 a special building was erected to house the school in Dessau, a special typeface was designed to characterise its creative approach, multi-skilled students swarmed the town... but by 1932 its prominent leaders had left; Walter Gropius to London and then to Harvard, Ludwig Mies van der Rohe to Chicago, and Marcel Breuer to Harvard (Sudjic



Bauhaus  
 ABCDEFGHIJKLM  
 NOPQRSTUVWXYZ  
 abcdefghijklmnopqrstuvwxyz  
 1234567890 .,/?!@#\$\$%&\*()

*The Bauhaus School.* [aehistory.wordpress.com](http://aehistory.wordpress.com)  
*Bauhaus typeface.* [bowfinprintworks.com](http://bowfinprintworks.com)



2008b). America benefitted from their arrival. And Dessau settled back into its quiet-town routine. The town itself had no particular merit as a Design City; only that it was host for those few years to a design school which dramatically influenced design practice and thinking in the years to come.

## Paris 1931. Modernism finds a language

“... Paris of the 1920s and the early 1930s had no doubt that it was the cultural capital of the world” (Sudjic 2008c). Paris followed London’s 1851 Great Exhibition with its own 1889 World’s Fair - during which the Eiffel Tower was inaugurated. After the end of World War 1, the city boldly presented the 1925 International Exposition of Decorative Arts and Modern Industries, which gave voice to the Art Deco style. Paris had “... a culture skilled in the arts of luxury” (Sudjic 2008c), drawing the young and ambitious, and having a sophisticated network of galleries and art-dealers.



Paris, 1930s. [chicshoppingparis.blogspot.com](http://chicshoppingparis.blogspot.com)

Falling between the two World Wars, Paris at this time was also a hotbed of ideological debate, for new expressions of art and literature. Design and architecture became the means for expressing political ideologies and aspirations. The city welcomed into its fold Pablo Ruiz y Picasso from Spain, and Charles-Edouard Jeanneret, known as Le Corbusier, from Switzerland – two towering creative geniuses in thinking, both able to re-create their artistic expression in their lifetime (Sudjic 2008c).

At the same time a new, rich elite in Europe was looking for new ways to express modernity, a language of things and buildings, which would communicate their adherence to progress and luxury.

There were other creative forces in Paris: Charlotte Perriand, Eileen Grey, Pierre Chareau, René Herbst, Robert Mallet-Stevens, Jean Prouvé -who concerned themselves with objects and lifestyles – and also writers, philosophers, painters, and musicians. Together they gave a language to Modernism (Sudjic 2008c).

Chair, Jean Prouvé. [www.guardian.co.uk](http://www.guardian.co.uk)



As a young man Le Corbusier first followed the Arts and Craft style. However, turning his attention to urban form and the ideal of equality of man, he advocated a revision of values, so that homes were no longer viewed as symbols of status, whether high or low, but as “living machines”; a mass-production state of mind needed to be achieved, he said, which would solve “the problem of the house”. According to him, functional, minimalist houses would be the great social equaliser (Sudjic 2008c).



Le Corbusier



[www.tumblr.com](http://www.tumblr.com)



Plan for the Radiant City, [sedulia.blogs.com](http://sedulia.blogs.com)

His concept for the *Radiant City* is well-known and would have mapped Paris in monolithic tower blocks of apartments, surrounded by parkland<sup>19</sup>, to achieve maximum efficiency in space and societal organisation (Sudjic 2008c).

Ironically, Le Corbusier's consequent designs and executions for villas and homes were never the result of mass production – they were all uniquely made and “depended on skilled craftsmen and precious materials” (Sudjic 2008c). Although diametrically opposite to William Morris in design approach, the outcome for both was that the wealthy were to benefit from their creative genius, rather than the poor whom they championed.

Jane Jacobs and other urban commentators subsequently challenged Le Corbusier's planning approach as dehumanising, mechanistic, over-planned, and destructive to organic city formation (Wendt 2009).

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<sup>19</sup> The Pruitt-Igoe social housing project, built in St. Louis, Missouri in 1954 followed this exact pattern – but it cannot be said that its design was responsible for its colossal failure alone, as gross municipal neglect proved to be one of the many destructive factors; and ironically, in the 21<sup>st</sup> Century discourse of Densification, this design for city form is again coming into focus.



## Los Angeles 1949. The American Lifestyle

Los Angeles after World War II presented a unique set of circumstances which made it the quintessential representation of 'The American Century'. "A converging cluster of historic, economic, demographic, technological, social and artistic factors stimulated what became the mid-century's most vibrant design culture", expressed through architecture, furniture and interior design (furnishings), industrial design (appliances), graphic design and publications, and the film industry (Smith 2008).

### Historic

Los Angeles, as the rest of America, was faced with post-depression economics, post-war returning veterans, and young families facing unemployment. There was a huge housing shortage, and growing social issues. But increasingly after the war, California became the American epicenter for the development of Modernism, and the American Lifestyle (Smith 2008).

### Demographic

In just 6 years, between 1949 and 1955 the population in Los Angeles doubled from 5.5 to 11 m; with a "convergence of individuals from many fields who aspired to develop something new – whether in architecture, design, art, music, film, technology, industry or business" (Smith 2008).

### Economic

The city embarked on huge infrastructure investment - particularly bringing water to this desert region - as well as building a "massive system of freeways" (Smith 2008) to accommodate the growing car population. The industries developed during World War II blossomed after the war, as innovations and material application diversified into industrial and consumer production and a thriving economy. The mood of the time was adventurous, forward-thinking, one of experimentation, development, and progress - nothing was impossible!



*Los Angeles freeways. [www.lacarguy.com](http://www.lacarguy.com)*

## Thought-leaders

Since the late 1920s, 1930s and in the 1940s Los Angeles became home to a growing group of intellectuals, artists, architects (some had fled from the aftermath of World War I). In the mid-1940s John Entenza ('editor of *Arts & Architecture* magazine and design enthusiast') emerged as a leader-thinker, and center of a group of socially- and progressively-minded 'architects, designers, artists, musicians, writers' (Smith 2008). In 1945 he launched a Case Study House programme of affordable, modern, off-the-shelf-building-material homes for average American families. He formed a close friendship and collaboration with Charles (architect) and Ray (graphic designer) Eames – and this collaboration had a profound influence on the future of design (Smith 2008). The Eames' together designed furniture, home fittings, interior designs - and a leg splint which was used during World War II.



John Entenza  
[standardandpools.wordpress.com](http://standardandpools.wordpress.com)



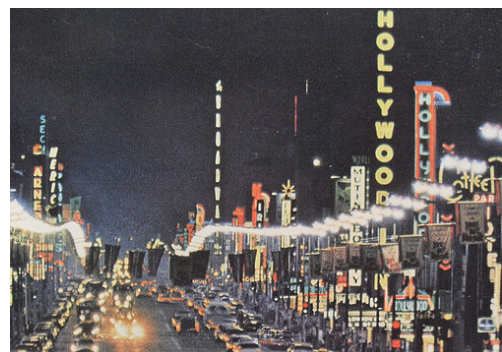
Ray and Charles Eames  
[justcreative.com](http://justcreative.com)



Eames Lounge Chair (1956)  
[www.1stdibs.com](http://www.1stdibs.com)

## Film, Graphic Art and Communication

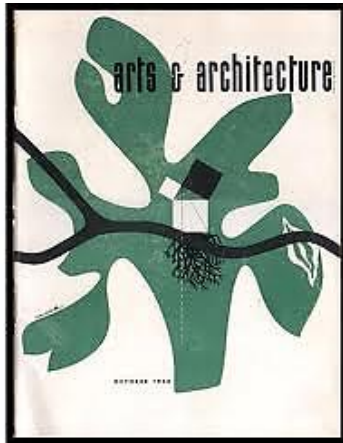
Los Angeles, the 'City of Dreams', is inextricably linked to the film industry, the medium which more than any other, spread the narrative and values of the American lifestyle and Consumerism globally. Los Angeles also became the definitive city for the development of the graphic design industry, finding expression in the burgeoning industries of film, and printing, and the consumer culture. Magazine covers and layout, advertisements, brochures, signs for shops, furniture, and lifestyle products, film title sequences – all gave scope to this new form of design.



Los Angeles by night. [flickrriver.com](http://flickrriver.com)

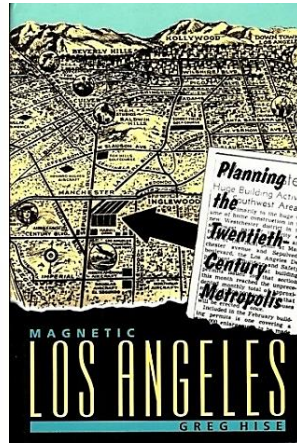
Apart from the many magazines targeting all kinds of interest groups, there were magazines specifically dedicated to Art and Architecture (see examples below). The 1950 formation of the Society of Contemporary Designers, consciously promoted the contribution of this branch of design

to society and progress. ‘Art in Action’ became Charles Eames’ popular phrase, indicating continual progress, experimentation, the spirit of adventurous exploration into the New – and yet paying attention to social needs – seeking to “... convey a more humanised, personalised and popularised vision of the power of art and design” (Smith 2008).

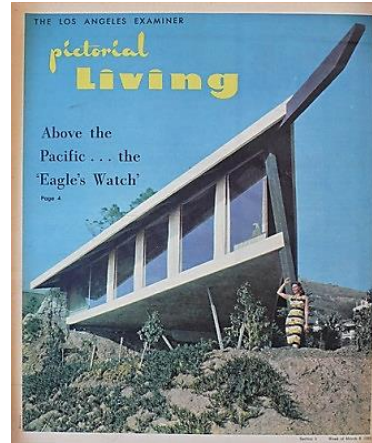


Architectural and lifestyle publications – Los Angeles, 1950s/60s.

[www.modernism101.com](http://www.modernism101.com)



[socalarchhistory.blogspot.com](http://socalarchhistory.blogspot.com)



[inbetweennoise.blogspot.com](http://inbetweennoise.blogspot.com)

### Topographic, Climatic

The mild climate, beaches, open spaces, and relaxed lifestyle of Los Angeles had a direct influence on its built environment; and new buildings, while being early expressions of Modernism, also “responded powerfully to the impact of its terrain and climate, as well as to other regional traditions” (Smith 2008).

### Technological

World War II had channeled the region’s industries into war-time production (weapons, aeroplanes, ships, medical equipment, fighting gear). The post-war “culture of innovation and experimentation” gave birth to the aerospace industry – tangible evidence of modernity and futurism. From the wartime experiments with new materials and new production methods for workers’ housing, these “advanced technologies and production processes” carried over to a post-war burgeoning experimental building style, which shaped private homes, their interiors, immediate neighbourhoods and environments, and commercial and corporate building styles – as well as the fittings and furniture that went into those buildings. Modernity was clearly visible in California (Smith 2008).

### Retail industry

In tandem with technological and economic developments, the face of retail changed. Large street-facing glass-window showrooms enticed customers. This new shopping experience and innovative,

simplified, versatile and adventurous furniture, as promoted by the Frank Brothers, Van Keppel Green, Kasparian, Glenn of California, and Brown Saltman “had a strong, lasting impact on the choices of consumer and on the culture of interior design”. As well, Knoll Associates went into production with the Herman Miller showroom, becoming the furniture of choice for many offices, restaurants, public spaces (Smith 2008).

Los Angeles exemplified the modern American city, and the modern American lifestyle. This was to spill over to many other cities and countries around the world.

## Milan 1957. European Consumerism



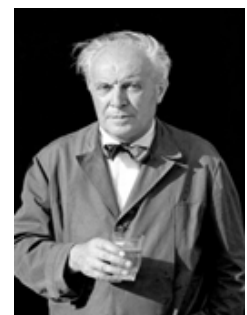
*Skyscrapers and High Fashion. Pirelli Tower, Milan. therepublicofless.wordpress.com*

Milan’s brief period to lead progressive design thinking occurred in the decade between 1955 and 1965. This small city had suffered badly during the war, with many buildings destroyed, many homes and possessions lost. There was a need for positive forward-thinking, filled with hope for a better future.

The baton was picked up by an extraordinary group of designers and architects, supported by a group of adventurous entrepreneurs, promoted by a number of influential design magazines and significant exhibitions. Their task was the reconstruction of a society, freeing itself from the recent oppressive fascist regime and philosophy (Romanelli 2008).

In a city as badly damaged by the war as Milan, any change to its skyline signaled progress and heralded optimism. Two significant buildings were erected during this time, architecturally on opposite sides of the spectrum, and in reality depicting the city’s internal struggle for a new identity and new values. Gio Ponti’s Pirelli Tower, Europe’s first skyscraper and expression of Modernism

– became a symbol of a new confident ‘international’ Milan, while Ernesto



*Gio Ponti  
www.delood.com*



Rogers' Torre Velasca reflected Lombardy's medieval fortresses, and emphasised regionalism (Romanelli 2008).



*Torre Velasca, Milan*  
[www.visualphotos.com](http://www.visualphotos.com)



*La Rinascente department store, Milan*  
[www.modaevviva.com](http://www.modaevviva.com)



*Duomo Cathedral, Milan*  
[famouswonders.com](http://famouswonders.com)

The massive department store directly opposite the Duomo cathedral in Milan, La Rinascente, became - and still is - *the* tourist area. One could view Leonardo di Vinci's *Last Supper* in the cathedral, and then stroll across the square to view the newest design objects from around the world. Europe's top industrial design award, the *Compasso d'Oro*, introduced at that time by the store and Gio Ponti, is still awarded to this day. Other stores such as the Fly Centre, the Danese building, Azucena and Arteluce all showcased the best of Italian and international design, and encouraged young designers to design new products and ranges, creating the 'Made in Italy' quality symbol. Designers in Milan at that time produced a wide range of imaginative objects; briefcases, shoes, cars, bicycles, locomotives, sewing machines, televisions, appliances, airplanes, fans, espresso machines, scooters, typewriters, and the Milan Metropolitana underground line (Romanelli 2008).

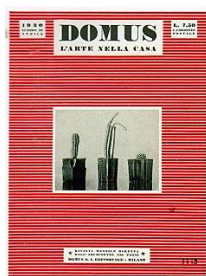


*The Valentine typewriter*  
*Ettore Sottsass for Olivetti, 1969. afflictor.com*



*Vespa by Piaggio*  
[www.flickr.com](http://www.flickr.com)

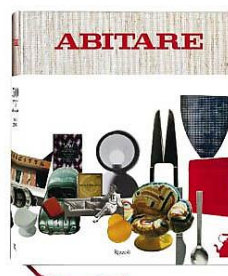
A few prominent design publications were launched, conveying perspectives on life, space, and values, with contributions from influential designers, architects, writers and artists. *Domus*, edited by Gio Ponti, promoted an international design ethos and targeted an international readership with Italian design; *Casabella*, edited by Ernesto Rogers, reflected local Italian living and design, and addressed issues of Urbanism. *Stile Industria*, edited by Alberto Rosselli, focused on industrial design, while *Abitare*, edited by Piera Pieroni, started out as an interior decorating magazine, but shifted to environmental issues ahead of its time. *Domus*, *Casabella* and *Abitare* are still published today (Romanelli 2008).



[www.painting-box.com](http://www.painting-box.com)



[www.ensemble.info](http://www.ensemble.info)



[www.mica.edu](http://www.mica.edu)



Salone di Mobile, [www.arper.com](http://www.arper.com)

With two prominent exhibitions, started in 1947 and 1961 respectively, Milan effectively captured the title of Italy's design capital from Turin and Venice. The Triennale Milano exhibition has grown into an international show, still showcasing extraordinary locally designed and made furniture, furnishings and appliances, and also now included a series of art exhibitions - sculpture, photography, multimedia - and object, fashion, and architectural design. The Salone di Mobile – the annual Milan furniture fair – still draws hundreds of thousands of visitors and the finest and most forward-thinking of international designers, and has become the most significant show of its kind in the world (Romanelli 2008).

In the post-war decade, Italy too was immersed in the European post-war boom; the economy was improving and new products flooded the marketplace to encourage the new culture of Consumerism. The public was hungry for a new way of life, eager to banish the recent past (WW 11) out of their minds. Following 5 years of loss and destruction, and the slow recovery in the aftermath of the war, Europe was in need of buildings, furniture, and possessions to fill the void. As incomes and buying power improved, the public developed a new relationship to 'stuff', and the consumerist behavior and values newly-birthed in America spread to Europe - "...new cars, new domestic appliances, new clothes and new consumer objects, that together added up to an affluent new way of life". The designer, Joe Colombo, was probably the truest expression of 'la dolce vita', an unconventional and imaginative designer for a "... mobile, fluid 1960s lifestyle" (Romanelli 2008).

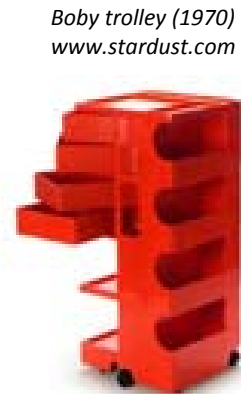




Joe Colombo. [www.designboom.com](http://www.designboom.com).



Sedia Universale (1965)  
[www.arredamento.it](http://www.arredamento.it)



Boby trolley (1970)  
[www.stardust.com](http://www.stardust.com)

Italy's fascination with Consumerism, Modernism and the beautiful – and easy – life came into sharp conflict with leftwing political sentiments which flared up in the late 1960s. Violent student demonstrations attacked the lifestyle shows as “a manifestation of bourgeois decadence”, forcing them to be cancelled. Only when the political turmoil subsided in the late 1970s could the exhibitions again be resumed (Romanelli 2008).

## Tokyo 1987. The birth of miniaturisation



Tokyo in the 1950s. [www.vintag.es](http://www.vintag.es).



Present-day Tokyo. [www.japanfocus.org](http://www.japanfocus.org).

In the aftermath of World War II, Tokyo was both physically and psychologically devastated. USA bombers had relentlessly retaliated, destroying many buildings; the nation had been defeated.

Tokyo was rebuilt quickly, engulfing old sacred places and traditional architecture with stark, grim concrete structures, meant to survive earthquakes and wars. The economy similarly had to be rebuilt quickly, Japan benefitting as well from the buoyant economic and financial conditions which prevailed in the 1970s and into the boom years of the 1980s. Within 20 years after the war, Japan

had become known as the workshop of the world, and working hard to equate 'Made in Japan' with the highest quality workmanship (Popman 2008).

The need to originate, rather than the tendency to copy (perfect copying was the highest sign of honour in Japanese culture), could only happen as Japan's baby boomers entered the workforce. This was a generation who had -

... grown up with no knowledge of hunger or defeat and [had] been educated in schools and universities, and which had shaken off the legacies of militarism and emperor-worship; the first generation that was free to be modern and encouraged to be expressive.

Popman 2008.

As their economy roared along at breath-taking speed, three phrases could have described Tokyo: high-rise buildings, shopping malls, new technology. Values and prices in the property market began to soar and foreign architects were employed to design more stylish buildings, to counteract the "vast mass of mediocre architecture" (Popman 2008). But also Japanese architects established themselves, such as Kenzo Tange, the "father of modern Japanese architecture", Takamitsu Azuma, Kisho Kurokawa (famous for his modular hotel), and Tadao Ando - "his architectural firm earned a reputation for its use of light and the ability to work with a building's natural landscape" (Popman 2008).

Huge shopping malls housed a flourishing retail industry, with imports from around the world. Local designers established studios, and firms such as Parco and Seibu got new corporate faces, with clear design investment in their stylishness and glamour. The younger generation had money to burn, enormous choice in stores, and the latest fashions to indulge in. Fashion designers Issey Miyake, Yohji Yamamoto, and Rei Kawakubo gained international fame. The work of industrial designers such as Shiro Kuramata was seen at international design shows.

*Shiro Kuramata and designs:*



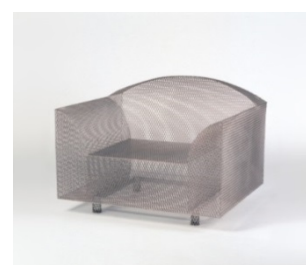
*Glass chair -  
[www.wright20.com](http://www.wright20.com)*



*Kyoto tea  
table, designed  
for Memphis in  
1983 -  
[www.1000-  
objekte.ch](http://www.1000-objekte.ch)*



*Wire mesh chair - [arttattler.com](http://arttattler.com)  
"...translating workaday industrial  
materials -wire steel mesh,  
corrugated aluminium, lucite -  
into poetic objects and interiors"  
[http://www.designboom.com/  
portrait/kuramata.html](http://www.designboom.com/portrait/kuramata.html) - 7.4.13.*



In Japanese design there was “an extraordinary flowering of creativity which established Japan as the first Asian country to create a design aesthetic as rich and distinctive as those of, say, Italy or Scandinavia”, locals referring to “Western technology and Eastern spirit” (Popman 2008).



*The ultra-modern Nakagin Capsule Tower, Tokyo  
by Kisho Kurokawa.*

*Katsura Rikyu villa – reflecting the traditional Japanese value of harmony.  
[www.japan-guide.com](http://www.japan-guide.com)*



Japan joined the global economy just as the world was awakening to the Digital Age. And this is where the most significant contribution of Japanese design was invested. Japan invented miniaturisation. Previously-large electronic installations and equipment became smaller and utterly mobile, offering an enormous range of electronic goods. But it also liberated humans to be connected to information anywhere, anytime.



*Miniaturisation. Smaller. Slimmer.  
<http://uhaweb.hartford.edu/klotz/historyofcellphones.html>*

Sony CEO, Akio Morita, was at the forefront of this wave of innovative electronic ware. The signature Sony Walkman, launched in 1979, was small, light, and neat (according to the Japanese ethic of ‘elegant minimalism’). It was designed by Sony employee Nobutoshi Kihara (with later acknowledgement to Andreas Paval, a German-born Brazilian, who had issued a similar concept during that time). The firms Olympus, Toshiba and Matsushita also became international household names, although their designers remained anonymous.



*[mazzetta.iobloggo.com](http://mazzetta.iobloggo.com)*



It is this spirit of innovation that urges Japan to survive in the face of its 1990-financial crash, nuclear disaster, tsunami, and Chinese competition in production (Popman 2008).

## London 2008. 'The global centre for design'



*Norman Foster's Swiss Re Tower dominates the present-day London skyline. City of London.*

At the time of staging the *Design Cities* exhibition in 2008, the world was in the throes of the 2007 financial meltdown and the worst economic depression since 1929. By 2008 as well, the global conversation about sustainability, climate change, non-renewable energy, scarce natural resources, inequality, food stress and homelessness was well underway.

Before establishing the reasons which make London a design city in the 21<sup>st</sup> Century, Emily Campbell, writing the London 2008 essay, therefore admits that London designs do not benefit all sectors of society, nor do they discourage Consumerism.

London's sharp inequalities of wealth might be seen to run counter to the idea of a flourishing design culture, or at least a failure of that design culture to impact on the society around it. Equally London's emphasis on untroubled consumption in the form of shopping and fancy real estate – rather than efficient and affordable public transport, for example – hardly suggests a culture in which design as a means to build a better world is taken seriously.

Campbell 2008: 124.

So would London deserve the right to be called "the global center for design?"

The reality is that the city of London draws hundreds of young as well as experienced designers into its fold in a never-ending stream. London is one of the most cosmopolitan cities in the world – the result of the backwash of colonised populations from the empire. It is a melting pot of social groups, across the income spectrum, from the homeless to the fabulously wealthy; it is a leading financial center, with traditionally a hyperactive economy. London's famous brand names are designed by international designers from all parts of the world (from Holland to Israel to the Czech Republic), owned by international companies, and not always manufactured on the island of Britain.

Delving deeper, and bearing in mind that London comes from a long history of "... relationships between art, craft, manufacturing, engineering and design", London society and economy is mature in the sense that it recognises and deliberately applies design as a generator of wealth (Campbell 2008: 128).

London design is "... confidently inspired by materials, processes and information as much as by symbolic or cultural meaning. That design is widely acknowledged as an intellectual process and a service, rather than as the production of objects, is an indication of its advanced status" (Campbell 2008: 128). Design is used for personal expression, for commercial status, to create "visible touchstones of culture", to distinguish what is 'local' from what is 'global'; and it is used to communicate extensively to the public:

... new products, buildings, graphic languages and services harness technology for human needs and express the character of contemporary society. Prolific communication industries signify an open and enquiring society. Social welfare, quality of life and inclusiveness are preoccupations of design in advanced economies where design is an important aspect of democracy.

Campbell 2008: 126.

'Hard', 'soft', and 'in-between' design is well represented in London - 'hard' design being architecture, engineering and manufactured goods (whether from plastic, metal or concrete); 'soft' design being fashion, advertising, publishing, and magazines; and 'in-between' design being furniture, service design, and design thinking (the last being "closely associated with social organisation, democracy and citizenship") (Campbell 2008: 128).

In addition London boasts "... one of the most mature and prolific design education systems in the world", with a plethora of design courses at all levels, forming part of the education curricula from primary school. Illustrious tertiary design institutions draw the best young design minds from around the world. The design industries are also well supported through applicable laws, information technology, and other professional services (Campbell 2008: 131).



Add to this London's healthy dose of skepticism, as evidenced in its advertising, publishing and fashion industries, which reflects an essentially questioning, critical approach, and a refusal to conform or be 'bedazzled'. The London public is skeptical of 'innovation for innovation's sake'. This skepticism demands a degree of authenticity (Campbell 2008: 132).

This attractive melting pot and design-productive city hosts iconic designers such as fashion doyennes Vivienne Westwood and Paul Smith, furniture designers Jasper Morrison and Ron Arad, industrial designer Tom Dixon, digital guru Danny Brown, architects Norman Foster, Cecil Balmond and Thomas Heatherwick. It must be emphasised that adept designers such as these seem to move effortlessly between the disciplines of architecture, industrial design, furniture, and art and sculpture.

Exquisite retail outlets such as *Established & Sons* (promoting furniture by big-name British designers) and publications such as *Wallpaper* add solid yet glamorous support to the industry. Both the latter are run by CEO, Alasdhair Willies, strongly supported by graphic design studio MadeThought. (Campbell 2008: 133).

'Queen' of fashion, Dame Vivienne Westwood.  
[gossip-juice.com](http://gossip-juice.com)



Vociferous industrial designer and British design icon, Tom Dixon, and designs . [www.designboom.com](http://www.designboom.com); [www.blog-espritedesign.com](http://www.blog-espritedesign.com)



Tom Heatherwick with his Spun Chairs; and his design of copper lily-shaped holders for the London Olympic Games flame - representing all the participating nations - which then unfolded before a gasping audience.  
[gallantandjonesblog.com](http://gallantandjonesblog.com) [www.artlyst.com](http://www.artlyst.com) [www.telegraph.co.uk](http://www.telegraph.co.uk)

“London allows (us) self-definition and the freedom to move between disciplines” is the comment from London-based designers (Campbell 2008: 131). And the public is charmed by **popular cult personalities** through home make-over TV shows, which fuel their dual identities as ‘furious consumers’ and amateur designers, crafters and stylists.

At the turn of the millennium London City did the smart thing by dedicating funding to improve old buildings (adding to the layers of meaning and history of the city) and to designing new iconic buildings (such as Norman Foster’s Swiss Re Tower, locally referred to as the Cucumber). The Tate Modern in Southwark is an example of the former – an old brick power station has been transformed into a fantastic gallery space, with an eclectic offering of shops, eateries, small art galleries, and boutiques; entrance to the gallery is free, educational programs are inclusive, and the precinct is open 24 hours of the day. “The Tate Modern is quite fully designed. It is the very synthesis of culture and consumption, self-improvement and social thrill that our age requires” (Campbell 2008: 132). The new skyline gave the city a new confidence, increasing its visitor appeal.



*The Millennium Bridge and the Tate Modern gallery, London.*  
[www.theaustralian.com.au](http://www.theaustralian.com.au)



*35 foot spider by Louise Bourgeois, outside the Tate.*  
[www.fotothing.com](http://www.fotothing.com)

Since then, London’s mayoral office has appointed a team called Design for London, with the four goals of providing “beautiful and accessible buildings, inspiring, well-managed public spaces, neighbourhoods that blend old and new, and effective, pleasurable transport infrastructure” (Campbell 2008: 132). There is no mention of social inclusivity.

London provides the ideal platform for the expression of 21<sup>st</sup> Century values – as opposed to the 20<sup>th</sup> Century focus on chairs, labour-saving domestic appliances, housing for all, and portable electronics. According to Campbell, the 21<sup>st</sup> century focusses on services, image, brand, the built environment as holding space for human activity, and regeneration. This is enough “... to lift the heart of any believer in design as the convergence of art, industry and social progress” (Campbell 2008: 132).

## APPENDIX C

### World Design Capitals – 2008, 2010, 2012

The goal of promoting design as both a Profession and a Solution to the challenges of the day – urban, environmental, societal, economic – led to a strategic alliance between ICSID (International Council of Societies of Industrial Design, with 50 nation-member countries), ICOGRADA (International Council of Graphic Design Associations) and IFI (International Federation of Interior Architects/Designers), and the launch of the World Design Capital project in 2008. Acknowledging that cities are the focal point of country economies and population concentration, and therefore a critical testing ground for the effectiveness of design in the broadest sense, the competition/status of World Design Capital not only focusses on design achievements in a city's past, but also on its potential to deliver design solutions to its challenges for the future – “to make cities more attractive, more livable and more efficient” (WDC u/d). To quote ICSID president, Mark Breitenberg: “WDC is more than just a project or a programme – it's a global movement towards an understanding that design does impact and affect quality of human life” (Koblitz 2011). Four cities have so far been awarded the status of World Design Capital: Torino, Italy in 2008; Seoul, Korea in 2010; Helsinki, Finland in 2012; and Cape Town, South Africa in 2014.

The guidelines for the competition in the sample application cover a wide reach:

It is essential that your application clearly defines the aims and objectives of your city to hold the designation, as well as provide a detailed account of your city's contribution to design from a social, economic and cultural point of view.

WDC u/d.

### Torino : World Design Capital 2008



*City of Torino, Italy.*

### Profile and Pilot City

Torino in North-West Italy, a small city of just over 900 000 people, was selected by the ICSID organising committee as an ideal case study for the first World Design Capital for 2008 to help define the criteria for further cities with this designation.



Already grounded in a design culture and home to Fiat and Olivetti, Torino was in the process of redefining itself from an industrial city to a 'European city'. What this seems to mean, is a cosmopolitan city, a tourist city, a 'dolce vita' lifestyle city (WDC u/d).

Torino had well-established engineering industries and a broad application of design industries. The city hosted design educational institutions and professional design associations, boasted of many exhibition and cultural venues and design laboratories, and had already been applying design to redefine the image and functionality of the city. Torino is also ideally and centrally located and serviced with transport facilities, and the municipality had an annual committed budget to promote design solutions to establish a liveable city with a high quality of life. In addition the infrastructure of the city had been boosted by hosting a mega-event, the February 2006 Winter Olympics (WDC u/d).



Streetside branding. [www.icsid.org](http://www.icsid.org)



Torino Design. [www.carbodydesign.com](http://www.carbodydesign.com)

## World Design Capital 2008



'Another Green Colour' – and many shades of green - was adopted as the slogan for the 2008 World Design Capital, referring to 'green design', 'environmental sustainability' and many applications that are flexible and "produce an infinite range of sensations" (WDC u/d). Four particular target groups were identified and four themes to match, i.e. Public Design (focussing on citizens), Economy and Design (focussing on business), Education and Design (focussing on academics and educators) and Design Policies (focussing on government and institutions) (WDC u/d). The city offered a series of exhibitions, events, conferences, lectures, workshops, design collaborations, and design competitions – 340 initiatives in all.

Torino Geodesign, one of the key initiatives of World Design Capital Torino 2008, was launched as a competition, but started as a debate on the critical role of cities, and the role of design within that context. This debate was organised by



the leading design magazine *Abitare* and Torino WDC 2008, and invited participation from prominent international architects and designers, to discuss “the profound metamorphoses underway in the forms of production and use of design and the potentially explosive role of major cities in the promotion of design as a key factor for social cohesion” (Geodesign Torino).

The aim of Torino Geodesign was to bring communities, designers, and manufacturing companies together in a dynamic triangular relationship. Designers acted as catalysts to help various interest groups (‘practice communities’) design something that would meet their immediate needs, and manufacturers were found to produce the designs. For example, a circus school needed a portable tent; council housing occupants needed a clothes drying rack for closed balconies; vendors needed a stall and cover for the market; Albanian students in Torino needed a language-specific magazine; the African community needed a radio station; the Romanian community needed a headquarters building; the Turkish baths needed specialised utensils; the cycling community needed an anti-theft device built into streets. Forty-eight such projects were executed, mapped, and recorded.

## Results

The results of Torino’s World Design Capital 2008 were tested in terms of media success, and qualitative outcomes. Astra Research conducted online questionnaires with 1596 respondents in December 2008, and found that 73% of the respondents did know of WDC Torino 2008, in general, with varying degrees of knowledge of the specific programs and projects. The Torino municipality claimed a variety of interesting outcomes (WDC u/d):

- closer cooperation between its design education institutions in formulating their curricula;
- an enhanced focus on planning in government, business and institutions;
- closer links with international design institutions;
- collaboration with top visiting designers in the fields of architecture, urban design, industrial design, service design, and design lectures;
- extensive media coverage, drawing thousands more tourists;
- an increased awareness and appreciation from the public for the contribution of design;
- an increase in skills training and design competencies in the workforce;
- the 340 events held during the World Design Capital year forged greater cooperation between local industries, government and design experts;
- the Torino Design Week has also become a permanent annual feature.

Sarah Fortunati, who was a member of the Turin WDC2008 Organising Committee, reported that Turin had received more visitors in 2008 than in any other year over the half-century, (which included the 2006 Winter Olympics). Today, Turin is acknowledged as one of the major Italian design cities (Koblitz 2011).



## Seoul : World Design Capital 2010



[en.wikipedia.org](https://en.wikipedia.org)

*Seoul is a city of high rise business buildings, bland residential apartments, surrounded by natural beauty; at street level there is colour and bustling activity.*



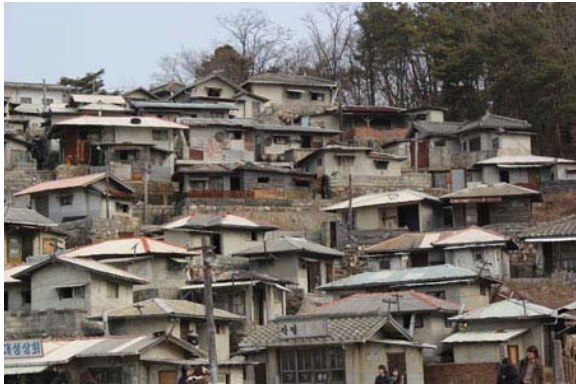
[www.ciee.org](http://www.ciee.org)

### Profile

After the Korean War in the 1950s, Seoul was a ruined and almost abandoned city, the citizens fleeing for safety. The dictator, Park Chung-Hee, who came to power in a 1961 military coup, steamrolled foreign capital into the production of export goods (Kunzig 2012). Rapid Industrialisation led to rapid growth and urbanisation – the so-called ‘Miracle on the Han River’ - and Seoul’s inhabitants increased over a 50-year period, from less than 3 million in the 1960s, to 15 million in 2010 – a quarter of the total population of South Korea.

“The growing city enabled the economic boom, which paid for the infrastructure that helped the city absorb the country's growing population” says economist Kyung-Hwan Kim of Sogang University, adding "you can't understand Urbanisation in isolation from economic development" (Kunzig 2012).

Housing did not however, receive the same attention as infrastructure. Slum settlements sprang up everywhere, on the slopes of the hills and in the valleys surrounding the main core of Seoul. Some citizens were homeowners, but had never acquired legal title to the land; others were renters. In the 1980s a city renewal program was introduced, with forced removals of the poor, and harsh bulldozing of slum houses and slum areas. The poor were left destitute, as many could not afford new housing. Only persistent campaigning by charity and activist groups resulted in a policy of partial compensation for loss of property being adopted in 2000, the renters of course receiving much less than the owners (Bell 2011, Brennan 2012).



*Slum housing, Seoul, before city renewal. [www.columban.org.au](http://www.columban.org.au),  
[www.democraticunderground.com/discuss/duboard.php?az=view\\_all&address=439x1207515](http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=439x1207515)*

Today, Seoul is a city of high rise business buildings, jam-packed, bland apartments, and surrounded by a healthy ecological landscape. The city has a strong cultural imprint and information technology infrastructure, with industries based on electronic and electrical brands, and cars. The new approach from the city management is to change the image of the city from a 'hard city' to a 'soft city', with people at the center of every development and decision (WDC u/d; WDC Seoul).



*Present-day Seoul. [tompayneblog.com](http://tompayneblog.com)*

The restoration of the Cheonggyecheon Stream between 2003 and 2005, is one of the urban renewal projects which helped Seoul win the bid as the second World Design Capital.



*Once a flowing stream in the middle of the city, the Cheonggyecheon was gradually choked with debris. Over a few years an elevated highway of nearly 6 kilometres was constructed, which remained from 1976 to 2003. This once beacon of 'successful industrialisation and modernisation' was then torn down to make way for the Cheonggyecheon Restoration Project, which took two years and cost around \$281 million. Now a living stretch of water and vegetation, it has become a symbol of a modern environmentally-friendly city (WDC u/d).*

## World Design Capital 2010



At the launch event in 2009, Seoul Mayor Oh Se-hoon envisaged the transformation of the entire city, with Design as the economic driver; 'Design for all' was announced as the slogan for World Design Capital 2010. Building on the infrastructural developments that were done during a previous mega-event – the 1988 Seoul Olympic Games – the aims of Seoul World Design Capital were defined as using design for urban revitalisation “... towards sustainable urban development, to improve the quality of a citizen's life, [and] to activate the economy through design industries” (WDC u/d).

The municipality of Seoul dedicated US\$180 million (€161 million; ZAR2,4 billion) towards city projects in preparation of Seoul becoming World Design Capital (Business Week 2008). These projects were in the form of visionary architecture – such as Dongdaemun History and Culture Park by Zaha Hadid - but also practical, visible changes to the city, such as pedestrian-friendly walkways (where stilettos would not get stuck), attractive public toilets, street kiosks, signage, sanitation trucks, municipal worker uniforms; and huge investments in recreational and cultural city shared spaces (WDC u/d). One of the flagship projects was a total overhaul of the city's call center system, which now caters in a number of languages for both local residents and foreigners, and ensures that only one call needs to be made for any enquiry (Cape Argus 2012).

'The Namsan Renaissance' was one such project announced by Mayor Oh Se-hoon. It would transform Mount Namsan, at that time housing various governmental buildings, into a tourist destination, particularly for the inhabitants of Seoul. He declared the demolition of “...the former Korean Central Intelligence Agency headquarters, Seoul Metropolitan Fire and Disasters



headquarters and an annex to City Hall, [to] create green areas and waterways instead.” Pine tree groves, and walking and jogging paths, would create Seoul’s own ‘Central Park’ (Korea Times). Other similar projects included the Hangang Renaissance (providing accessibility to river banks and river sport), and the transformation of Seonyudo Island (from a sewage treatment plant, into a lush, eco-conscious park) (WDC Seoul).

In addition, design industries were encouraged to harness creativity to give export-orientated industries a significant boost. This... “... will help increase the size of Korea's design market - measured by the total of revenues by design houses and investments in design by ordinary companies - to \$15 billion in less than 10 years, from \$7.4 billion last year ... in coming years we'll see aspects of design in our everyday life” predicted Lee Kun Pyo, president of the Korea Society of Design Science (Business Week 2008).



Restaurant, [www.retaildesignblog.net](http://www.retaildesignblog.net).



This ‘Living Light’ Sculpture maps Seoul’s air quality, [www.inhabitat.com](http://www.inhabitat.com).



“Seoul Mayor Oh Se-hoon describes his “Namsan Renaissance” master plan, in front of the mountain in Seoul. The city will demolish buildings on the mountain and build green areas and waterways instead”. Korea Times.



‘Ridenpush’ by You Ho Jeon  
‘Seoul Cycle Design’  
Competition,  
[www.designboom.com](http://www.designboom.com).

## Results

At the end of 2010, during a hand-over ceremony of the World Design Capital to Helsinki for 2012, Mayor Oh emphasised: “... Seoul has grown out of its past ‘growth-first’ principle that ignored quality of life” and “.... urban design [is] not merely a matter of convenience, aesthetics, and safety but an ‘essential element for survival in the 21st century’ in view of the competition between cities for investment, tourism and talent, as well as maintaining and raising the happiness index among its residents and visitors (ISCID u/d).

And, declared Dr. Mark Breitenberg, ISCID President, World Design Capital was ‘a laboratory for the future’ and ‘a global movement’. “Design” he said, “... has become an essential factor not only in business fields but also in all areas including culture, politics, administration, society, and education. Developing strategies for promoting and advancing design are now being recognised as ... core necessities for corporations as well as governments” (ISCID u/d).

But in South Korea design has not achieved all these desired results. A February 2013 article of the McKingsley Global Institute calls for a second ‘Miracle on the Han River’, pointing out that although the GDP in South Korea has nearly tripled over the past 20 years, growth has decoupled from ordinary citizens, with “real wages rising at less than half this rate”, and very high suicide rates, high divorce rates, and falling birth rates. Part of the problem is that large manufacturing companies have become global players, and one third of home jobs have been lost since 1995. The other problem is that the education system is not preparing children for entrepreneurship, the service industry, and useful vocations. A new economic model is needed to combat rising unemployment and inequality and declining growth (Choi & Dobbs 2013).



*The Cheonggyecheon Restoration Project- a vibrant public space. [popoloasis.wordpress.com](http://popoloasis.wordpress.com)*



## Helsinki : World Design Capital 2012



*Helsinki harbour and streetside cafés. City of Helsinki.*

### Profile

With a population of only 1,25 million in the greater metropolitan area, Helsinki, the capital of Finland is a small city (590 000 inhabitants), but the hub of a vibrant economic, cultural and educational life. It is centrally located to both Eastern and Western Europe, institutionally connected, and has an excellent public transport system, with a high standard of living. Its competitiveness is based on innovation, research and development (WDC u/d).

Finland is rich in natural beauty, with 188 000 lakes, 180 000 islands, 37 national parks, 1.8 million saunas, and 475 000 summer cottages. A third of Helsinki itself consists of green areas – parks, sports grounds, forests, and waterside amenities. It would seem that only babies and toddlers are not ‘connected’ in this highly-connected nation, as its 5.4 million people own 5.2 million mobile phones (Visit Finland).

In 2012 the British lifestyle magazine, Monocle ranked Helsinki second only to Zurich as the best city to live in – with “the strong and rising role of design visible in the streets and everyday life of Helsinki” as a strong recommendation (Visit Finland). And the WDC Helsinki 2012 media service claimed that -

In 2009, there were 789 companies concentrating exclusively in graphic, interior or industrial design (including fashion) in the Helsinki Metropolitan area. Their turnover reached €92 million [US\$104 million; ZAR1.39 billion]. If we look at all those industries where design is playing an important role, we can say that one fourth of the jobs in the Helsinki region are design-industry jobs, which translates into 110 000 people earning a living from design. The number of design industry jobs has grown conspicuously, at an average of 3-10 times more rapidly than jobs in other industries in the region. Finnish design has a long and distinguished history. It is no exaggeration to say that design is ever-

present in the Finnish lifestyle. We respect traditions and cherish the past but, above all, design represents our future.

WDC Helsinki.

## World Design Capital 2012



Helsinki, together with its close sister cities, Espoo, Vantaa, Kauniainen, and Lahti, won the status as World Design Capital for 2012. To maximise its stated goal to “increase the use of design in Finnish society” (Final Report) the 5 cities were supported by the Finnish government and a collaborative network of 21 corporate partners (who used WDC to develop products, brands and competitiveness), secondary and tertiary educational institutions (Helsinki and Aalto Universities), NPOs (including Ornamo and Design Forum Finland), foundations, and iconic Finnish designers.

A budget of €17.8 million (US\$19.9 million / ZAR265.4 million) was committed for WDC 2012, from the state, the five cities and the private sector; with €6 million dedicated to communications and marketing; €4.5 million to personnel and administration; and €7.2 million to 551 program projects, selected from 1 400 proposals. Half of these were development projects, and the other half public events. A total of 2 800 events surrounded these projects. There were, for example, more than 100 exhibitions (Final Report). Communications was consistently applied to spread awareness and invite participation. The entire WDC project was managed by Finland’s International Design Foundation, and “...implemented by a network of 14 500 people in 290 organisations in Finland and abroad” (Final Report). In addition, more than €50 million was committed by public and private sector for buildings and infrastructure (Cape Argus 2012).

WDC 2012’s slogan and theme was ‘Open Helsinki – embedding design in life’, with three sub-themes: Open City (human-centred design), Global Responsibility (urban and environmental challenges), and Roots for New Growth (design to stimulate economic growth), thereby dealing neatly with the triple bottom-line. In addition, stated the Deloitte impact assessment at the end of 2012, “WDC Helsinki 2012 especially promoted projects focusing on design education, user-oriented services and comprehensive solutions utilising methods inherent in design” (WDC Helsinki).

The WDC Helsinki 2012 media service reflected some of the projects backed by local and national government:

- Transforming the urban environment - the focus of the Helsinki/Laituri city planning department;
- Collaborations between Masters students and city municipalities focused on Design for Wellbeing – promoting the importance of co-design for social initiatives;

- Regional and community co-operation for self-organization and problem-solving - promoted under the banner of the Spirit of Artova;
- Citizens were encouraged to turn their homes into restaurants for a day;
- Redesigning 925, a program to redesign the working week for higher efficiency and work enjoyment – 100 new ways to work were suggested;
- The 'from low carbon to no carbon' project, promoted low energy use and low carbon in construction for a sustainable built environment;
- Roof gardens, urban gardening and organic farming in public open spaces were encouraged;
- Water consumption and availability became a focal point;
- Service, Strategic, and Information Design, were particularly highlighted, to lift the awareness of the application of design above merely product and surface design;
- Many corporate design programs stressed user-centered design and design for the economy;
- The University of Helsinki's new library in the city center, boasts a soundproof design to block noise from the streets (Cape Argus 2012);
- The Kamppi Chapel of Silence was built for church services and contemplation;
- The Design ROI tool – designed by the Finnish Design Business Association (FDDBA) and Aalto University – to provide a reliable index to measure the outcomes of investment in Design;
- Over 3 years, more than 200 events were staged in 44 international cities, to promote Finnish design, innovation and exports. One such notable event was Radical Design Week, held in October/November 2012 in Shanghai.

Final Report WDC 2012.



*The Kamppi Chapel of Silence.*  
[www.itsnicethat.com](http://www.itsnicethat.com).



*The new soundproof façade of the university library.*  
*Source: 21stcenturyarchitecture.blogspot.com.*



*Finnish fashion.* [www.euoffice.it/helsinki.fi](http://www.euoffice.it/helsinki.fi)



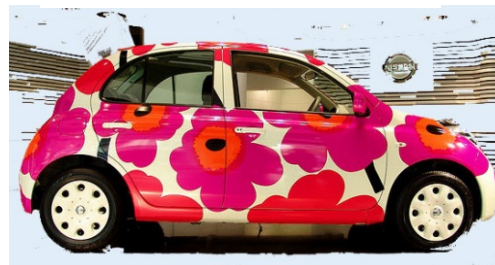
*Finnish product design.* [www.iamwheeler.wordpress.com](http://www.iamwheeler.wordpress.com)





*The Helsinki WDC Pavilion at Aalto University, celebrating wood.  
www.dezeen-com*

*Marimekko print on car.  
www.cheapolidays-com*



## Results

The organisers of WDC Helsinki estimated the total audience throughout the year at 2.5 million people. These included tourists, fashion and lifestyle journalists, and an estimated 20 000 design professionals from around the world, who attended the different conferences and seminars. Tourists, of course, are interested in the tourist experience of shops, galleries, restaurants, architecture, and sharing in the cultural lifestyle of the local residents (Final Report, WDC 2012).

A mid-year survey conducted by the City of Helsinki's Urban Research on the visibility and effectiveness of the project/campaign yielded interesting results (City of Helsinki 2012). Working with a sample of just over 1000, they compared polls taken during October 2011, February 2012 and June 2012 in Helsinki and close neighbouring cities, Espoo, Vantaa and Lahti –

- By June 2012, only just over 50% of those interviewed were 'following the discussion on WDC a little';
- Of this group, 54% felt that WDC had had 'no effect' on their everyday time use;
- Interviewees would regard WDC a success if these outcomes were achieved: increasing residents' happiness; creating better conditions for new enterprises and initiatives; offering residents the chance to participate in developing their own city; increasing people's knowledge of the role of design; and increased tourism. 'The success of the World Design Capital project in the light of these variables has generally been considered quite low', said the survey.
- Perceptions of the project were lower midway than at its start.
- 39% of interviewees considered that WDC had been well visible on the streets; only 18% had visited the WDC website; and only 4% had used the WDC Facebook page (interesting for a city saturated in connectivity).
- On a scale of 1 to 5, two opinions scored low, between 2.5 and 3.0 -
  - WDC ... is a good target for tax money
  - WDC ... has increased my interest towards my own city
- while six opinions scored between 3.0 and 3.5 -
  - WDC ... is interesting
  - WDC ... is meant only for a small proportion of residents
  - WDC ... is for the higher strata of society
  - WDC ... benefits the city in the long run

- WDC ... feels close to me
- WDC ... is an important project for the whole country.

City of Helsinki 2012.

However, a Deloitte impact study, conducted at the end of WDC 2012, claims that -

By the end of 2012, design had become an increasingly important social issue and topic of public discussion in Finland. The available materials suggest that citizen understanding of design had increased, and the user perspective had become more prominent in design. Design was used to solve problems in diverse contexts. Design education for children and young people was strengthened, [and] new forms of collaboration emerged... Helsinki emerged as an internationally appealing design city and served as a meeting place for the global design community.

Helsinki 2013.

“More than anything, World Design Capital Helsinki 2012 has [linked]... new, innovative design ... with Helsinki. This is evident in the various queries we get: there is a lot of talk of such things as design processes. We have not received such queries before,” says Anna-Maija Mertens, Head of the Finnish Institute in Germany (WDC Helsinki).

One of the more ambitious legacies that Helsinki hoped to leave was the Design ROI (return on investment) tool - designed by the Finnish Design Business Association (FDBA) and Aalto University – to provide a reliable index to measure the outcomes of investment in design. Antti Pitkänen, project manager of Design ROI, points out that many Finnish companies still see design as that component which adds the “characteristics and appearance of a product”, rather than being “part of strategic decision-making of an enterprise”. But, according to Professor Jaakko Aspara of Aalto University, Finland has “... such knowledge of design and business management ... that there is good reason to presume that we will succeed in this challenge. Design ROI is a concrete solution to an extremely large problem that has delayed the impact of the otherwise well-developed design sector on society” (WDC Helsinki). The focus of Design ROI is the impact that design, as a strategic tool, can have on an organisation, measured in growth and turnover. (There is, as yet, no measurement tool for design’s impact on societal or ecological challenges).

Results from other countries are quoted to reinforce this expectation - in British companies, for example, investment in design activities or programs has been calculated to multiply income by two and a half times. Danish companies investing in design have shown a 22% greater growth than companies not investing in design - an advantage which could rise to 40% with continuous investment (WDC Helsinki).



## Appendix D

### Cost of Transport in Cape Town

The City of Cape Town's Transport Development Index (TDI) – the first to be developed in Africa – reveals that 95% of commuters making use of public transport in the city fall within the low and low to medium income groups; furthermore that the low income group spends on average R45 out of every R100 (or 45%) of their monthly household income on transport.

The TDI was developed by Transport for Cape Town (TCT), the City's transport authority, to evaluate the accessibility and related costs of transport to different income groups and users (the movement of people and goods) across the city. As such, the TDI has established the following:

- The majority of the population in the low income group are located in remote areas; meaning those among us with a monthly household income of R3 200 and less have to travel between 45 km to 70 km every day to get to work opportunities
- The majority of the commuters in the low income group live in Mitchells Plain (approximately 320 000) and Khayelitsha (approximately 250 000)
- Residents who fall within the low-income group either use public transport or walk to where they need to be
- Contrary to the original assumption that 80% of public transport users in Cape Town fall in the low and low to medium income group, this figure is actually as high as 95%, with 48% falling in the low income group and 47% in the low to medium income group
- Low income users spend up to 45% of their monthly household income on transport, while the international norm is between 5% and 10%
- The highest priority cost for public transport has been identified as flexibility, which clearly means that there is not enough public transport and integration is poor
- The TDI revealed that when it comes to freight, congestion adds 10% to the direct costs. Further, freight costs the City R731 million per annum in relation to infrastructure and maintenance

Users are defined as those using public transport, private transport, non-motorised transport such as walking or cycling, and the freight user group who moves goods. The city was divided into 18 geographical regions or transport analysis zones (TAZs) from where the priorities (concerns and problems) for each user group were determined in terms of their income (low, low to middle, middle and high). The TDI identifies the access priorities or concerns in terms of the direct cost of transport, time (congestion), crime, safety, and flexibility.

City Of Cape Town. 3 June 2015. *Transport Development Index reveals cost of transport in Cape Town in terms of time and money.*

## Appendix E

### Cameo on Housing

#### Certificates of Tenure

The City has already handed over 3 308 title deeds related to historical housing projects and 404 title deeds to Council rental stock to home buyers including from Site C, Khayelitsha (CoCT 28 Oct 2013) and Monwabisi Park (CoCT 20 Feb 2014).

#### Mayoral Urban Regeneration Programme

The City of Cape Town established the **Mayoral Urban Regeneration Programme (MURP)** in early 2012 to uplift areas of Apartheid era under-investment, thereby creating a platform for shared public-private investment. Areas that would benefit are: Manenberg, Hanover Park, Lotus Park; Nyanga/Gugulethu; Bishop Lavis, Valhalla Park, Bonteheuwel; Harare and Kuyasa interchange precinct, Khayelitsha; Bellville transport interchange precinct and Voortrekker Road corridor; Wesfleur Business node (Atlantis); Athlone CBD and Gatesville; Ocean View; Mitchells Plain Town Centre; and Macassar (CoCT 13 Nov 2013). In addition, it has earmarked the **Integrated City Development Grant (ICDG)** from National Treasury for the development of two integration zones: the Metro South-East Corridor and the Voortrekker Road-Rail Corridor (CoCT 27 September 2013).

#### Community Residential Units (CRU) Refurbishment Programme

The **Community Residential Units (CRU) Refurbishment Programme** is seen as an important initiative in the City's efforts to bring redress through increased service delivery (CoCT 21 May 2014).

In **Langa**, one of the oldest townships, the old Apartheid-era hostels are being replaced by an immediate 463 rental apartments as a first phase of the City's Hostel Transformation Programme, with the remaining 837 units planned within the next five years. "1 300 families, or approximately 5 200 people, will be relocated from Apartheid-era hostels to secure two-bedroomed apartments in Langa – with individual kitchenettes, toilets, showers and solar-heated water systems, wash-lines and space for children to play safely in the grounds" (CoCT 21 Aug 2013).

*The old Langa hostels. stevevosloo.com.*



### Service delivery protest action under the guise of political activism?

The City of Cape Town condemns in the strongest possible terms the violent protests which have damaged infrastructure, disrupted communities and hindered service delivery across the city this week **and in recent weeks**. The violent protest in Langa, under the guise of a service delivery protest, is especially suspect considering the estimated planned spend on housing opportunities alone of more than half a billion Rand over the coming years. Furthermore, the results of the Customer Satisfaction Survey for the last five consecutive years reflect a consistent and increasing level of satisfaction with the City's service delivery efforts by residents in the Western area, which includes Langa.

CoCT 10 Jul 2014.

Six months into the start of the City of Cape Town's Hostel Transformation Project in Langa, good progress has been made despite an extremely wet winter, protests in Langa and the protracted metal worker's strike (CoCT 1 Oct 2014).



*The new Langa residential apartments. [www.infrastructurene.ws](http://www.infrastructurene.ws)*

The completion of the refurbishment of 600 City rental units in **Hanover Park** six months ahead of time, is regarded as a breakthrough in the City's CRU Refurbishment Programme. "The Hanover Park area consists of 28 three-storey twin block courts with a total of 1 680 rental units. As a result of its vastness, this area had to be divided into three sub-projects to ensure sound project management. Ten local subcontractors were contracted for this phase and in total more than R4 million was spent on local labour" (CoCT 29 Sept 2014).



*Hanover Park refurbished CRUs.*

[www.capetown.gov.za](http://www.capetown.gov.za)



## Award – Pelican Park

The City was awarded the 2014 Community Development Project of the Year Award by the South African Housing Foundation (SAHF) in recognition of its Community Residential Unit (CRU) Refurbishment Programme, while the **Pelican Park** housing development was awarded the Best Integrated Housing Project (CoCT 2 Oct 2014). By 1 March 2015 nearly 1 200 Breaking New Ground (BNG) units have already been handed over to beneficiaries of the Pelican Park integrated human settlements development.

Pelican Park, a World Design Capital 2014 project, is integrated across the full spectrum of affordability, with 2 024 totally subsidised homes (Breaking New Ground) being built alongside 760 starter homes (Gap Housing) selling for R320 000, and 360 higher value homes (bonded) valued from R480 000 to R700 000. The development incorporates provision for two new schools and a regional clinic to be developed respectively by the Western Cape Government Department of Education and City Health, as well as two properties zoned as places of worship. A commercial precinct was also opened in November 2014 in an effort to enable economic opportunities for the residents.

CoCT 1 Mar 2015.



*Pelican Park. [www.dtbof.co.za](http://www.dtbof.co.za)*



## Rollout of Solar panels



*Helping themselves to electricity.*



*The roll-out of low-cost housing is now linked with solar installations – Bardale, Cape Town. Solar Plus website.*

## Violence Prevention through Urban Upgrading

The City of Cape Town's Urban Design Policy, adopted by Council, requires developers to consider the bigger picture in future developments – including the integration of neighbourhoods and designs that enable safe communities- focussing on surveillance and visibility. This is a concept that has also been one of the pillars of the Violence Prevention through Urban Upgrading (VPUU) project situated in the Mayor's Office. It includes the design of residential units and public spaces that have clear lines of sight and good lighting to ensure maximum public visibility at all times.

CoCT 4 Dec 2013.



*The Violence Prevention through Urban Upgrading (VPUU) project in Khayelitsha, with a 'safe house' along the route.*

## Re-blocking

Re-blocking is an official city programme, which is embarked upon with the cooperation of the community, which saves and contribute 20% towards the re-blocking and upgrading. A safer, more community-grouped, and accessible layout is proposed and ultimately created, to allow for the provision of basic services. **Flamingo Crescent**, one such example, now has upgraded structures, paved roads and a 1:1 ratio of water, sanitation (flush toilets), refuse collection, and electricity services, which the City funded at a cost of over R2 million (CoCT 2015). **21 projects** for re-blocking have been identified (CoCT 5 Nov 2013).



*After the fire - devastation of 1 January 2014 in BM Section, Kaayelitsha. After the reblocking- with community volunteers. Ikhavalami website u/d..*



After a devastating fire that ripped through the **BM Section informal settlement in Khayelitsha** on 1 January 2014, the people were housed in the nearby O R Tambo community hall; and then had to wait for the official visits from key cabinet ministers and the President before the work of clearing and remapping could commence. “The volunteers cleared and prepared the site and from 11 March 11 community members and 7 Ikhayalami staff became the building team all of whom were paid. In the course of 6 weeks terraces were created as the topography was extremely uneven, foundations were built, slabs were poured and 90 upgraded shelters were built in a reconfigured layout” (Ikhayalami website u/d). After this the reconstruction of the settlement continued.

### Illegal land occupation or land-grabs

The City of Cape Town’s ‘Anti-Land Invasion Unit’ destroyed the homes of 125 people in the illegal settlement of **Marikana, Philippi-East**, which became the subject of scathing journalistic commentary (Daily Maverick, 2 May, 8 May, 9 May 2013). The land invasion gathered momentum and re-occurred in August 2014, with “building material, which had arrived *en masse*, by a torrent of trucks” (CoCT August 2014). As this was privately-owned land, “the Constitutional Court on 7 August 2014 delivered judgment in the City’s favour in the Erf 150 Philippi East matter (also known as the ‘Marikana’ land invasion case)” (CoCT August 2014). The City of Cape Town viewed this as politically-instigated actions to promote lawlessness and make the city ungovernable.



City of Cape Town’s ‘Anti-Land Invasion Unit’ destroyed the homes of 125 people in the illegal settlement of Marikana, Philippi-East. Photos: Jared Sacks.

The case of the shack demolitions in **Lwandle** during the winter of 2014, proved to be another thorny matter. Situated on **Sanral land**, the demolitions were carried out, by Sanral, but the National Minister of Human Settlements, Lindiwe Sisulu, accused the City of the act. As it was private property, the City could only provide sanitation services - 45 chemical toilets - along the periphery of the land, an uncomfortable solution. After the demolitions, with accusations flying fast and furious, Sanral was induced to rebuild the 849 shacks, and the City is making long-term provision for the families in a major new housing project in Macassar (CoCT June 2014).



In another incident: Two Metro Police officers run for cover after being attacked by rocks. Photo Henk Kruger ( IOL website, 2011).

Protesters seize District Six flats. About 60 people describing themselves as 'Kosian descendants' have occupied vacant flats built for District Six land claimants. "I'm standing on the land of my forefathers". The Times. 29 June 2013.

6 The Times Wednesday June 19 | 2013

NEWS

## Protesters seize District Six flats

'I'm standing on the land of my forefathers'

NASHIRA DAVIDS

"DON'T worry, I will give you a key, a place to live," said one of the 60 people who illegally occupied vacant flats in District Six intended for land claimants.

The elderly woman being spoken to has waited for years for her land claim to be settled.

She embraced the woman who offered her a home and disappeared up the stairs.

According to the District Six Museum, more than 60 000 people were forcibly removed when the neighbourhood, at the foot of Devil's Peak, was declared a white area in 1966. Many of those displaced insisted land claims and some are still waiting for redress.

On Friday, a group of "Kosian descendants" broke into the flats built by the Department of Rural Development and Land Reform.

On Monday, the department was granted an interim eviction order in the Cape High Court but protesters had angry words yesterday as they waited for the sheriff of the court to appear.

"The Goringhaikona, Goringhaikona, Goringhaikona and Cochoqua walked this land. There were three kraals here. So how can they say we are intruders? I am standing on my forefathers' land," said activist Bushy Sitters.

Bradley Sitters added that the Khasian knew the area of Cape Town long before it became a city.

"The pre-colonial name is [Houtland] — where the rats clench gather," said Sitters.

The group, who occasionally stepped outside to sing and blow a shofar — to "call up the spirits of the past" — were seen as an irritation by others in the area.

"I had to wait for this house for many years. You can't do things illegally," said one man.

Department spokesman Vuyani Nkomo said that 120 units, valued at R1.2 million each, were built.

He said land restitution takes three forms: financial compensation, land restoration and alternative land.

Those who opted for land restitution in District Six have to pay R200 000 before occupying the homes — a sum few can afford.

The department is compiling an "indignita list" to assist them.

"District Six is prime land and the value of property there has increased significantly," said Nkomo.

The group announced that the reformed United Democratic Front had joined them and they would apply for the eviction order to be revoked.

PROMISED LAND: Paul Lawrence towards a shofar to call up the spirits of the past. About 60 people describing themselves as 'Kosian descendants' have occupied vacant flats built for District Six land claimants

Picture: SHELLEY CHRISTIANS



## Formalising housing – exchanging the one for the other

What started as a good idea - upgrading the kilometres-long shack settlement alongside the N2 (the road that all visitors to Cape Town would follow from the airport to the City) - proved to be a long and painful process – people moved into temporary shelters, not sure of their return into newly built apartments; the sense of community and whatever level of social capital, ripped apart; instances of corruption and favouritism; and ongoing battles and protests.

The reality could be seen as ‘low intensity civil war between the community and state officials’ (Isandla 2007).

*N2 Gateway project, Cape Town, a national initiative. (State of the City 2006).*



*Informal Settlements – a sense of community perhaps, but where rape is commonplace and undefended (Daily Maverick 25 Feb 2015, Shacks in Siqalo settlement, in Mitchells Plain. [www.dailymaverick.co.za](http://www.dailymaverick.co.za))*



## Poo Politics

The 2013 incidences of human excrement being dumped on the provincial headquarters’ entrance stairs and at the Cape Town International Airport; and being thrown at cars on the N2 highway, was the Voice of the People, protesting against shocking basic services delivery - the right to clean, private, working, at-a-safe-distance toilets. ‘500 000 people living in Cape Town have no sanitation’, claimed a banner, backed by the Social Justice Coalition.



[www.iol.co.za](http://www.iol.co.za)



*Cape Argus, August 2013*



[washafrica.wordpress.com](http://washafrica.wordpress.com)

Their lives consist of experiences which are dehumanising, embarrassing, with no privacy, plagued by fear of rape or murder, unhealthy, sick children, a contaminated environment, more faeces than decent space to dispose of it; toilets are often open, no doors, clogged, severely unsanitary. These conditions are the result of poverty, often displacement, uneven rollout, weak maintenance of facilities, no delivery on promise of democracy, inequality. When poo enters the domain of politics people are one dangerous delicate step away from a full-blown social uprising.

Schutte 12 June 2013.

But the City of Cape Town has denied that this is true citizen activation, but rather political hand-in-glove operations by the Ses'Khona People's Rights Movement (through protests and prevention of service delivery, also accusing them of vandalism and looting) and the Social Justice Coalition (SJC) (by running an independent audit of toilets, rather than encouraging citizens to use the free phone-lines to report defective ones) (CoCT 29 Apr 2014). In particular the SJC has chosen the path of rupture, rather than co-operation.

In a 5 February 2014 speech to a meeting between the City, the WC Government, the Concerned Citizens' Group and other community members, the Mayor of Cape Town declared that the number of toilets in informal settlements now totalled 43 000; that 800 janitors had been appointed to clean and maintain the toilets; and that Cape Town had 100% access to adequate sanitation – a performance above any other metro in the country. R520 million rand had been spent on water and sanitation services (CoCT 5 Feb 2014).

The sticky issue is that the City cannot roll-out services on private or national land, or on sensitive ecological areas, such as wetlands. Here, they can only place the toilets on the periphery, which involves citizens having to walk, sometimes in the dark and under threat of attack, to reach the facility. The other sticky issue is: what is the socially acceptable norm for how many people can share a public toilet? And while the City has provided cost-free phone-reporting lines for faulty services, how many of the citizens would actually avail themselves of that?

## APPENDIX F

### Cape Town's Tourism Accolades

Condé Nast Traveler has ranked Cape Town as the **third Best Food City in the World** in its Readers' Choice Awards 2014. It follows Spanish San Sebastián and Paris, and beat Florence, Rome, Tokyo, Hong Kong, Singapore, Barcelona, Quebec, Sydney, Vancouver, Montreal, Lyon, Bologna, Kyoto, Vienna, Budapest, Madrid, and Melbourne (Whale Cottage 2015).

Whale Cottage website. 11 April 2015. *Cape Town World's 3rd Best Food City in Condé Nast Traveler's Readers' Choice Awards 2014!* [www.whalecottage.com/blog/cape-town/cape-town-worlds-3rd-best-food-city-in-conde-nast-travelers-readers-choice-awards-2014/](http://www.whalecottage.com/blog/cape-town/cape-town-worlds-3rd-best-food-city-in-conde-nast-travelers-readers-choice-awards-2014/)

Eric Lanlard, the French pâtissier and celebrity chef, revels in Cape Town's modern architecture, phenomenal food scene, and sense of community. His favourite spots are Robben Island, the V&A Waterfront, and Table Mountain, the Bay Hotel in Camps Bay for sundowners, winefarms, seaside restaurants and sunsets, and country hotels on the outskirts of the city. His favourite purchases are bring home local arts and crafts (Telegraph website, 2014).

Telegraph website. 2014. *Eric Lanlard's Cape Town: My Kind of Town.*

<http://www.telegraph.co.uk/travel/destinations/africaandindianocean/southafrica/capetown/10373004/Eric-Lanlards-Cape-Town-My-Kind-of-Town.html> - accessed 13 December 2014.

The **top three cities** nominated by Telegraph readers for this award are all beside the sea. But of the three, there is only one in which you can surf the Atlantic, climb mountains, eat in Michelin-starred restaurants, stay in both historical and super-hip accommodation, indulge in wine tours and still find time to relax on the beach (with or without penguins) - Cape Town (Telegraph website, 2013).

Telegraph website. 2013. *Cape Town leads best cites in the world.*

[www.telegraph.co.uk/travel/travelnews/11270729/The-worlds-best-cities-in-pictures.html?frame=2746862](http://www.telegraph.co.uk/travel/travelnews/11270729/The-worlds-best-cities-in-pictures.html?frame=2746862) – accessed 13 December 2014.

The New York Times placed **Cape Town top of the list** of 52 places to visit in 2014, ahead of 52 other destinations, such as Los Angeles, the Vatican and the Seychelles. The New York Times article is quoted as saying: "Cape Town is a place to meditate on freedom, and the creative life that followed" (CoCT 12 Jan 2013).

City of Cape Town. 12 January 2013. *Cape Town is New York Times' number one spot to visit this year.*

At the recent International Luxury Travel Exhibition Awards held in Lugano, Switzerland, Cape Town walked off with the award for Best Entertainment Destination. The award lauded Cape Town as a fantastic lifestyle destination - home to cutting-edge design (and designers), architectural innovation, a unique range of experiences (shopping, tours, activities, nightlife, restaurants) as well as cultural diversity and a wealth of world-class accommodation (SA website 2011).

South Africa website. 11 February 2011. *Cape Town wins Best Entertainment* [www.southafrica.net/blog/en/news/entry/news-southafrica.net-cape-town-wins-best-entertainment-award](http://www.southafrica.net/blog/en/news/entry/news-southafrica.net-cape-town-wins-best-entertainment-award)

The UK's 2004 prestigious Telegraph Travel Awards, surveying thousands of travellers, rated Cape Town as the **best city in the world**. In the same year, the US 2004 Condé Nast Top 100 Readers' Choice Awards selected **Cape Town in the Best City category for Africa and the Middle East**. Also in 2004 High Life Travel Awards, British Airways voted **Cape Town the best culinary city in the world**, beating New York, Sydney, London and Paris (Cape Times 2004).

Cape Times, October 19, 2004. *It's official: Cape Town is the best city in the world!*



## APPENDIX G

### Cape Town's Financial, Service and Technical Accolades

*City of Cape Town. 11 February 2014. City's welcomes Moody's confidence in Cape Town's financial stability.*

The City of Cape Town's fiscal prudence and financial sustainability have been commended by the international credit ratings agency Moody's of Aa3.za (CoCT 11 Feb 2014).

*City of Cape Town. 18 February 2013. City scores high as best performing municipality.*

The Western Cape Provincial Department of Economic Development and Tourism and the South African Local Government Association has ranked the City of Cape Town as the best performing municipality in the Province, one of only two municipalities that were ranked in the top 'Strong' category, and the highest score out of 120 municipalities in the country that have been assessed to date (CoCT 18 Feb 2013).

*City Of Cape Town. 2 October 2014. City shines as best metro, raking in top housing awards.*

The South African Housing Foundation (SAHF) has awarded the City of Cape Town's the 2014 Community Development Project of the Year Award for its Community Development Project (CRU) refurbishment programme, while the Pelican Park development was named the Best Integrated Housing Project.

*City of Cape Town. 14 May 2014. City scoops award as top municipality for water and electricity services.*

The City of Cape Town was named the top municipality in the African Utility Week Awards, for excelling in improved service delivery and minimising costs (CoCT 14 May 2014).

*City of Cape Town. 18 December 2012. City's energy-saving public lighting programme receives an Eskom eta Award.*

In 2012, the City of Cape Town received the Residential Category Award in the Eskom *eta* Awards for its public lighting programme, which involved retrofitting the City's traffic and street lights with almost 40000 efficient light emitting diodes (LED) lights, saving 9 317MWh (megawatt hours) of electricity per annum and avoiding 9 224 tonnes of CO<sub>2</sub> emissions (CoCT 18 Dec 2012).

*City of Cape Town. 27 August 2013. City scoops prestigious international GIS Award.*

At the Environmental Systems Research Institute (ESRI) International User Conference in 2013, the City of Cape Town was awarded the prestigious Special Achievement in Geographic Information System (GIS) Award. The City's Integrated Spatial/Property Information System won from more than 100000 other projects submitted from around the world. The City's system provides a single view of properties, both spatial and financial, thereby increasing accuracy, reducing red tape and speeding up processes, saving the City and ratepayers time and money (CoCT 27 Aug 2013).

*City of Cape Town. 9 June 2015. City scoops transport award in Milan, Italy.*

Transport for Cape Town (TCT) – the City of Cape Town's transport authority has received special recognition at the 61<sup>st</sup> UITP World Congress and Exhibition in Milan, Italy. The 'Union Internationale Permanente de Tramways', established in 1885, is the international body for public transport authorities. Cape Town's achievements in public transport and its transport authority to address the transport needs of residents and visitors to Cape Town, was lauded (CoCT 9 Jun 2015).

*City of Cape Town. 27 February 2014. MyCiTi recognised as a world leader in universal access.*

The Scientific Advisory Board of Zero Project, consisting of 28 renowned disability and accessibility experts, awarded the City of Cape Town's Universal Accessibility Policy and the MyCiTi Integrated

Rapid Transport system for its commitment and facilities to providing accessibility for passengers with special needs (CoCT 27 Feb 2014).

*City of Cape Town. 19 September 2013. City wins Recycling Municipality of the Year award.* PETCO named the City of Cape Town as the 'Recycling Municipality of the Year' for its ongoing efforts in waste minimisation through a number of recycling initiatives including community-based 'swop-shops' (CoCT 19 Sept 2013).

*City of Cape Town. 28 January 2013. City's waste facility wins award for outstanding achievements.* In January 2013, the City of Cape Town's Kraaifontein Waste Management Facility won an award for being one of the most outstanding civil engineering achievements of 2011/12 at the recent South African Institution of Civil Engineering Awards. The ke facility provides a service that meets the new National Waste Regulations, reduces waste transportation costs, provides meaningful employment opportunities, diverts waste from landfills and enhances the beneficiation of waste (CoCT 28 Jan 2013).

## APPENDIX H

### The Con Mag Blog

Cape Town's Pretend Partnership, 5 March 2014 – <http://www.theconmag.co.za/2014/03/05/cape-towns-pretend-partnership/> - accessed 11 March 2014.

#### Selected Comments

##### **JR - March 7, 2014 at 11:35 am #**

Hahahahaha..... Brilliant Ilham Rawoot... You should be nominated for a Pulitzer. Beautifully written, well stated, and well presented.

To all you Fuckwits... commenting against this trying to belittle her or this publication (be it digital or print). Sit on my middle and rotate.

She is a journalist, plain and simple. She will always a voice to speak the truth, which is what actually defines her in this article as a journalist.

To all the morons whom consult their "domestic" for ..

Please, get over yourself Cape Town, dont fool yourself for one second that "Design" is gonna save shit. We dont have a conclusive social system, we dont have adequate housing solution even for our poorest, we dont have proper sewerage systems for most of our country where YOUR DOMESTICS children are shitting in a field with disease ridden faeces, most townships dont even have roads, government or city support in our case, is the laughing stock of the world (Thanks Helen and DA...your theatrics are Soapie quality at best) ...etc. Bottomline is... people of all races comfortable really simply couldnt give a shit about our city truling developing.

People of the communities didnt rock up... cause what the fuck are they suppose to do with room full of douchbags talking about "the beautiful pixel density of that structure"... and "Oh... the Hue on that yellow is impeccable".

We are not a Christmas tree.. putting pretty ornaments all over it will never cover up the disdain of our past unless we actually start focusing on responding and helping the very very poor.

Currently we are Christmas tree with very fucking rotten roots because of our past, and until we start watering and nurturing the fucking tree, not dressing it up. Don't fool yourself for a second, THE WORLD sees through this complete bullshit charade...and we a holiday city at best in their eyes. We don't even celebrate our local culture, music and dance... but somehow we do celebrate Twitter, Instagram and Photoshop.

Don't kid yourself, Ilham is reporting, your job is to stand up and fix this shit for the people whom have no voice.

##### **Reply - Lydon - March 7, 2014 at 12:33 pm #**

You obviously have very strong political views, which you are completely entitled to, but the rest of your post is laden with a shocking amount of ignorance. In one sentence you've claimed that design isn't going to "save shit," then go on to complain about housing and sanitation issues, amongst others. Well, what on earth do you think is going to fix these issues? Design! Better architecture and urban planning are both at the heart of developing a better social environment in poorer communities. Both of these professions fall under the "design" category that you're so quick to slate.

Furthermore, if you think that the World Design Capital proceedings are limited to a couple of hipsters talking about the hues of colours and whatnot, I'll once again have to accuse you of ignorance. I would highly suggest you take a few minutes to visit the World Design Capital website. Click on the list of projects and educate

yourself. You can't for a second claim that projects such as "Affordable Homes" and "Grown In Philippi," for example, are anywhere near as shallow as you attempt to claim the entire event is. These are both excellent examples of design interventions improving the lives of the poor.

I find it confusing that on the one hand you're proud of the reporter in question for laying what she deems to be facts out on the table for everyone to see, but at the same time don't bother to spend a few minutes bringing yourself up to speed with the facts of the event you're ranting on about.

**Reply - Aragorn23 - March 7, 2014 at 1:50 pm #**

In fact, Lydon, better architecture and planning are simply ugly little band aids on a gushing wound. What WILL result in a better social environment is seeking to eradicate the underlying causes of poverty, i.e., an insane economic system and an oppressive, hierarchical form of coordinating our social affairs (i.e., the state).

This kind of design-centric parochialism is precisely a denial of these causes; it's not even a particularly well-distributed palliative.

The projects you list probably make for awesome pat-on-the-back Powerpoint presentations at the annual NGO shindig, but they do about as little to address the issue substantially as a fucking iShack does.

**Reply - Lydon - March 7, 2014 at 2:34 pm #**

Obviously we have to eradicate the underlying causes of poverty. That's no revelation. But no matter how you may attempt to spin it, design will play a role in fixing society's issues. You may believe that role is small and insignificant, while I may feel that it's far bigger. But a role it plays nonetheless.

Why, then, does it seemingly anger you that the design community would – naturally – seek design-related solutions to these problems? I'm not even a part of the design community, yet I find it bizarre that you'd express such anger towards a group of people that are simply doing what they enjoy and trying to make a difference in the process. I will concede that some WDC events may be self-celebratory and indulgent, but there is nothing fundamentally wrong with that. It is, after all, not the design community's mandate to fix society's social troubles and we are all guilty of self-indulgence in some way or form every day.

Before accusing others of being narrow-minded, perhaps you should re-evaluate your own views. Why do these design projects have to "substantially" address the issue of poverty, as your last paragraph claims (ignoring the ridiculous iShack comparison)? What is so wrong about small groups of people with small ideas that may only positively change the lives of a few people, but change their lives nonetheless? By that logic any small act of kindness is pointless because it isn't changing our economic system or the manner in which we conduct our social affairs.

Claiming that designers going about their designing is somehow their way of denying "the real issues" is an utterly ridiculous notion as far as I'm concerned.

**Reply - Aragorn23 - March 7, 2014 at 4:42 pm #**

Lydon, you say you are not a member of the design community. I am, and I have spent many years working as a designer and web developer, both at pretentious agencies and as a freelancer; when I criticise design, I am doing so as someone who has heard the narcissistic TED/pecha kucha/creative hub/etc. design-as-panacea rap from the inside a thousand times. Hell, I even used to spout it myself.

In some sense I DO actually believe design has some small role to play, but only if we put first things first: <http://www.eyemagazine.com/feature/article/first-things-first-manifesto-2000> – if not, it's just another form of fiddling while Rome burns, which is fine if we're only claiming to fiddle (I'm not being a moralist here) but a bit annoying when we're claiming to advance viable solutions that simply perpetuate the same types of problems as feelgood liberal NGOs who think they have the answers (and the tithing) for everyone's most pressing issues.

In other words, no, design doesn't have to address anything nor does it need to have a conscience. However, if it explicitly claims to be addressing social issues or to have a conscience (e.g., if it claims to 'improve the lives of the poor'), we have a right to point out the attendant shortcomings as well as the broader context within which it operates (in Cape Town, this context includes, at minimum, Neoliberalism, gentrification, displacement, the erasure of history, stark class and race divides and so on...)

Now, why is the iShack so problematic as a point of comparison?

**Reply - Polywoly - March 10, 2014 at 2:45 pm #**

The beauty of living in a democratic country is that we all have freedom of expression and I guess in your case that is exactly what you have done, expressed your opinion. However there is a difference between expressing your views through an interesting piece of writing and hurling misinformed insults at people either to justify your misconstrued anger and desperation for your voice to be heard. I'm always of the opinion that we can never have the same views and that is perfectly acceptable but there is no need to get personal when another person sees it differently. As a matter of fact I agree with every point that Gavin Mageni made and trust me when I say that he would not stand in a forum and make such statements if he was not talking from personal experience. As a matter of fact I am a young black person who grew up in poverty and never had it easy in life and trust me when I say that if I had adopted the attitude that most of my people have which says "I am entitled", I would not have been able to break through the cycle of poverty and make something of myself.

One question I have asked myself is why do white people succeed and we don't and not that I am undermining our past and environments that our people find themselves in but I have realised that they have an attitude that says "I can" and that is something that they have learnt since childhood and that is exactly what we need to drill into our people, an attitude that says "I can despite my background and my circumstances" and not I am entitled because I am a victim. We would be destroying our children if we continue to instill that victim mentality and we as a country can never go forward. As a matter of fact it is that mentality which is causing so much uproar through violent strikes whereby people end up destroying the facilities that have been built for their own benefit i.e. libraries, schools. Do we then sit and say it's ok because they are entitled, NO! We need to teach our people how to fish instead of always giving them the fish and that is the attitude we need to inculcate in our people.

To end off, I would like to say big ups to CTP for initiating such debate as Cape Town needs a serious wake up call. A job well done!



## APPENDIX I

### Interview, Perez

**Interview with Richard Perez, director of World Design Capital at the City of Cape Town – 26 September 2012.**

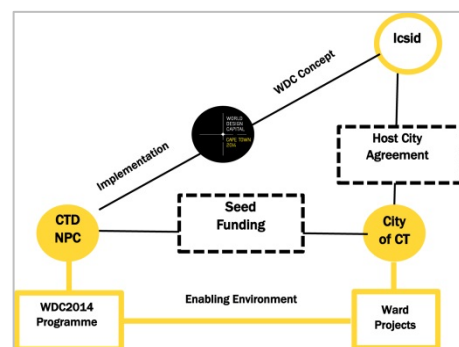
**Q: You have recently been appointed as the director for the World Design Capital 'project' in the municipality of the City of Cape Town. How do you view the challenge:**

**A:** Cape Town has many wicked problems – some are tame, some are truly wicked. That means they cannot be solved, they are highly complex, they can only be managed. One can also view the city as a system, and a system does what it is designed to do. If the outcome is not what was anticipated, then it was not designed for the desired purpose correctly. The law of Requisite Variety also comes into play, i.e. the control system of the system is inadequate, the system is more complicated than they can cope with, the people who need to manage the system are not equipped. The complexity is higher than the competence. The way to manage such complexity is to work in cross-disciplinary teams, and to filter; to target manageable bites of the system. Design thinking can work in complexity, in highly complex situations; through interventions. The value is in the process. However, citizens want to see tangible, visible results.

The World Design Capital is not an event, or a project – it is an opportunity, an excuse to intervene in the way things are done. The designers are the architects of the event and can contribute unconstrained thinking; Icsid (the organisers of WDC) views it in the same way. They have certain requirements – 7 events throughout the year (one has happened, signing of agreement). And then there needs to be many other tangible, visible outcomes of design which citizens want to see – to understand and to feel part of, to feel that they are benefiting.

The design community will be faced with the challenge of Ethics, self-interest being one of the attributes of wicked problems, to all concerned, also the designers – which therefore needs to be managed. For the past 40 years designers have served the interests of Consumerism – now they are being challenged to contribute to its un-doing, solving the wicked problems that have been created. These changed values also need to be inculcated at educational institutions. Sustainability in all aspects is another critical element. Also Politics – this being unpredictable, and gets factored into the complex system as such.

Richard described the **model** – the relationship between WDC 2014 in the centre; CT Partnership acting as the agent of the City of CT to pitch the Bid to ICSID; and the establishment of Cape Town Design, which will eventually have its own staff and Board, and be independent from both the CoCT and CTP. All civic suggestions will go to CTD to be filtered and selected – a broad, short-term funneling input, and a longer-term narrower roll-out and implementation.



He described his own role within the CoCT, with staff members (a dynamic, out-of-the-box fast-moving team), to act as interface between CTD and the city structures and staff, to encourage the implementation of a totally different way of running business: the interaction between the service delivery units within the city management; the design interpretation of citizen needs and goals; the communications programme with citizens – particularly the homeless, the informal, the unemployed, the insecure-tenured; the interface between the City and the design community.

## APPENDIX J

### Interview, Maritz

**Interview with Christo Maritz, CEO of Design Infestation Studio, Friday, 28 November 2014, 1:30, offices of Infestation**

**Q: How do you read the city? What is Cape Town to you?**

**A:** I feel a deep sense of ownership, an emotional connection to the city. When I go about the city, going cycling, or going out for a coffee, I'm proud of it. When things go well in the city, I'm happy, when things go wrong, I'm sad. I read the city through my own life, my participation in the city.

**Q: Do you 'see' the whole of the city, right up to the urban edge?**

**A:** To a degree. I enjoy and celebrate the new parts more than the heritage or older areas. I like some areas, and don't like others (for example, I don't connect to the Northern Suburbs)

I read the city through my past – I grew up in conservative Somerset West, and when I came to the city as a young person, I loved it – it was energetic, enigmatic, cosmopolitan.

I don't enjoy the townships, I feel unwelcome and marginalised – in the face of hardship, it reminds one that one is better off, and there is a sense of guilt. But if go for a purpose - for a workshop or meeting or function - I feel connected. I am inspired by what people themselves are doing to build and improve their lives through community building, but I am still overwhelmed by how hard the lives of people in the townships are.

I want to help – my personality profile is a 'fixer' – which is what steered me to becoming a designer, but being trained in a commercial, sales-driven world, I didn't previously join the dots between design and it being used to serve as an influence for social cohesion. Now I use design and choose the clients I work with to contribute to making the city a better place.

**Q: Working on the project - what was your vantage point? Who did you 'see'? What did you 'see'? What were your expectations? How did it work out, measure up?**

**A:** Infestation was hired to design the Bid Book; and I noted that it identified design as a tool for transformation. Cape Town was asking for the opportunity to highlight design to meet the challenges of skewed infrastructure, Apartheid legacy, the city management structure (flat rate).

As the process continued, the hope built in me that perhaps people could be brought to see that design was more than just 'pretty' and more than just 'things' – this would be a good foundation to build on. But design is not a 'quick-fix' but a 'process', and the process needs to start at school - through education - to create this awareness and realisation.

Then in February 2013 the Mayor announced the 111 Ward Projects – R300 000 per ward. I was excited as the possibilities this presented for education, building awareness, and participatory design. Then Cape Town Design, the implementing body, was formed, and I watched to see how they would implement the campaign/year/event/. It was interesting to see them take this approach of calling for projects – with the communication challenge to get projects to understand and accept that they were not being given money to fund their projects – everything had to be driven through citizens, NGOs, government, etc.

We were then asked to design the diagram showing the clustering of projects and their ripple-effects. In my opinion – after working through all the 461 projects in depth – there are about 40+ of them that are really good, and could have a lasting impact. Their success would not only depend on good design; there are other factors which make a project successful, eg. a passionate, skilled person in the right place at the right time – and unconsciously they do use design-thinking to get to the point of implementation. However, the many projects that were submitted (more than 1000) did get many people talking design, and the awareness and consciousness of design spread.

**Q: Tell me about the diagram – pillars – feeds – ripples – the 'agents'.**

**A:** The way we approached this was: if we imagine a 'better city' what are the things we should change? And we thought: equality, mobility, livable communities, education, care of the environment, and more. The pillars are the themes which could contribute towards a better city, with contributing actions feeding into the pillars, and with ripple effects. The 'agents' are the citizens themselves, strongly undergirded by government on all levels.

Ultimately the most NB benefit of WDC was that it built networks across sectors. The Ward co-creation workshops were an excellent example – local government, community members, ward councillors, designers participated, in a facilitated, fun, creative, constructive thinking process, which also needs more than one partner to process into action.

**Q: What was the most missed opportunity, and what is the biggest threat?**

**A:** We didn't get business involved. The formal economy needs to buy into design and design thinking. And the way to speak to business is through success case studies.

We didn't have the opportunity to 'design-think' informality, and find creative answers to huge challenges.

The biggest threat would be if we went back to business as usual – just 'fixing things', without consulting, without thinking creatively, and each silo for itself; people solving their own problems (eg the hugely unsafe access of electricity in townships), designers working for the top 15% of the market. The legacy of WDC shouldn't be for the sake of Design, but for the sake of the city and for people.

**Q: How did you see your role in WDC2014 – as an independent, an observer, an influencer, outside the rigid structures - did you have a sense of being 'able to make a difference'?**

**A:** I actually saw and positioned myself 'on the inside', and volunteered my time, but at a heavy cost – a huge loss of commercial opportunity time. It would be worth it if there were two important outcomes: if design could be recognised and applied as one of the strongest drivers in the city – to grow businesses, the economy, jobs; and if the city's design capacity and competitiveness could be nurtured. There is a huge opportunity to use Cape Town's design talent as a resource – we are a 'brain port' and could be a unique selling point of Cape Town – but then the city must itself start 'buying design' – functional AND beautiful AND efficient (not just the minimum standards). At the moment, city tenders compare graphic design services to that of a printer. Richard Perez's department within the city could be hugely strategic to bring about this change of perception and operation.

**Q: How did you make sense of all the information – all the projects? How did you 'read' the city differently after that?**

**A:** The appreciation of design is lacking – it's not in our DNA. But Cape Town DOES have raw inspiration – “ ‘n boer maak 'n plan'<sup>20</sup>” – we don't settle for the obvious, the established, we have much to work with – **but we must find the right channels to release that innovative urge and appreciate it.** Even the action of protest provides ownership, and should feed into the culture of innovation. I was taught (as part of the design-thinking process) to define the challenge, and the very next step is: who is the audience, who are we talking to, what are their needs and perspectives – which is the basis for inclusive, user-centred design. Every career/discipline should be taught to think like designers, be they engineers, dentists, hairdressers, doctors, lawyers...

**Q: Has there been a shift in the Cape Town design community through WDC2014?**

**A:** I think that there has been a shift from loneliness (feeling misunderstood in a marginal career) to a feeling of inclusion (being part of the bigger economy). Young people who follow a design career are often the brave loners, an independent bunch, but they are not smart business thinkers.

**Q: What is needed to cement this shift more?**

**A:** Cohesion - between all the 'design'-voices that are talking. Collaboration. And follow-through.

The Cape Town Design Network has created a platform, the *Open Design Festival*, to promote and showcase design; challenges to the design sector are discussed through their Design Dialogues;

**Q: How can the Cape Craft + Design Institute assist them?**

**A:** Teach and strengthen designers in their business and marketing skills.

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<sup>20</sup> English translation: “A farmer contrives a plan”.

## APPENDIX K

### City of Cape Town WDC Projects – 77 ongoing projects, and 111 Ward co-design projects

**Environment** – ‘green’ buildings, urban agriculture, solid waste management, collection of recyclable waste, 34 key projects in the Mayor’s Portfolio of Urban Sustainability (Eco-Logic Awards, September 2014), reducing carbon emissions, community co-design of public spaces.

**Health** – substance abuse treatment and counselling, HIV patient clubs.

**Housing** – basic services for backyard dwellers, upgrading social housing, emergency housing kits after disasters, re-blocking informal settlements, Pelican Park integrated housing development.

**Management process** – one-number corporate call-center, digital problem-reporting system, FreeCall customer service lines, integrated police and emergency response, improved property valuation system, computerised management of city vehicles.

**Social development** – the Langa cultural precinct, early childhood learning, a central-city skate park, upgraded city libraries, the Violence Prevention through Urban Upgrade initiative, community gardening, promoting cycling lanes.

**Staff development** – gender, multi-cultural, communications, emergency care.

**Utilities and transport** – a single transport authority, feeding electricity into the grid, reducing use of electricity, exercising valve machines for the city’s water reticulation network, Buitengracht pedestrian bridge, the unfinished freeway.

**Economic development** – citywide broadband, the Cape Town Growth Options (CTGO) project envisaging 50-year growth trajectories for the areas north of the N1 highway, the Dunoon local area planning initiative as an example of community-driven economic and social infrastructure improvement, the Economic Areas Management Programme using a data modelling tool to assist and action decision-making, the Cape Town Stadium and Green Point Urban Park transforming that area into the fourth most visited city destination, improving the process of beach-trader permits, reducing administrative obstacles for entrepreneurs, the Open Design festival which builds understanding and participation in transformative design activities, public-private housing initiatives for lower, middle and upper-end housing, a responsible tourism programme monitoring impact on the environment and encouraging community entrepreneurial opportunities.

*77 City of Cape Town WDC2014 projects – summarised from CoCT 2014, Designing our City Together.*

### City of Cape Town 111 Ward co-design projects

Wards: 18, 87, 89, 90, 91	A Memory Centre in Khayelitsha.
Wards: 46, 47, 48	Eco Park, Induland Crescent, Hanover Park.
Wards: 102, 105	Recreation in Kraaifontein and Fisantekraal.
Wards: 29 and 32	Designing for Recreation: Revisioning the Protea Park Sports Facility in Atlantis, and developing a new park in Akkerboom Laan, Mamre.
Wards: 2, 10, 22	Improving parks in Ravensmead, Parow and Uitsig.
Wards: 51, 52, 53, 55	Public space, Public art.
Wards:	Reimagining Look Out Hill.
Ward: 70	Reimagining Doordekraal Dam.
Wards: 63, 65, 72 and 110	Rethinking Youth Development Programmes.
Wards: 24, 31, 50	Co-Design Workshops.
Wards: 21, 101, 102	Transport interchanges in Bellville, Durbanville and Bloekombos.
Ward: 45	Upgrade of NY 10 Park.
Ward: 77	Upgrade of Upper Leewen Street Park, BoKaap.
Wards: 78, 79, 81, 82	Upgrading community parks in Mitchells Plain.

*City of Cape Town Ward co-design projects. <http://www.capetown.gov.za/en/WDC2014/Pages/Ward-projects-Co-design-workshop.aspx>*

## Appendix L

### Strategic and Operational Policies and Plans

Cape Town Spatial Development Framework  
Cape Town Integrated Development Plan  
Social Development Strategy  
Economic Development Strategy  
Service Delivery and Budget Implementation Plan

Air Quality Management Plan  
Alcohol and other Drug Harm Minimization and Mitigation Strategy  
Annual Police Plan  
Arts and Culture Policy  
Cape Town Densification Policy 2012  
Central City Development Plan  
City of Cape Town Electricity Services Business Plan  
City of Cape Town Events Policy  
City of Cape Town Film Policy and Protocol April 2004  
City Health HIV/Aids and TB Plan  
Energy scenarios for Cape Town  
Fire Management Plan  
Homeless People Policy

Integrated Coastal Management  
Integrated Human Settlements – Five-year strategic plan: 1 July 2013 – 30 June 2018  
Integrated Transport Plan  
Investment Incentives Policy Framework  
Land Use Management System  
Municipal Disaster Risk Management Plan  
Non-motorised Transport Policy and Strategy  
Organisational Development and Transformation Plan  
Solid Waste Management Sector Plan 2014  
Water Services Development Plan (WSDP) for City of Cape Town 2012/13 – 2016/17  
Tourism Development Framework

#### The Strategic Development Framework was based on -

Adaptation to Climate Change in the City of Cape Town  
Agricultural Land Report  
Analysis of Spatial Economy Report  
Breaking New Ground WC discussion Document

City of Cape Town Socio-Economy profile  
Demographics Discussion Paper  
Developable Land within Urban Edge  
Evaluation of Community Social Facilities  
Housing and Urbanization Strategy

#### The Integrated Development Plan was based on –

City of Cape Town Turnaround Strategy  
Corporate Scorecard and definitions  
CT Spatial Development Framework  
Disaster Management Plan  
Economic Development Strategy  
Final Draft Annual Police Plan  
Future Cape Town 2030  
Health Plans: Air Quality Management, HIV/Aids/TB Plan for the City, District Health Plan  
Informal Settlement Master Plan

Integrated Housing Plan 2009/10 – 2013/14  
Integrated Metropolitan Environmental Policy  
Integrated Risk Management Policy  
Integrated Transport Plan 2006 – 2011  
Organisational Development and Transformation Plan  
Solid Waste Management Plan – 2010 review  
State of the Environment Report  
Water Services Development Plan 2010 review